The
GEOGRAPHICAL
MAGAZINE

FEBRUARY 1956 2/6

ALL CLASSES OF INSURANCE TRANSACTED

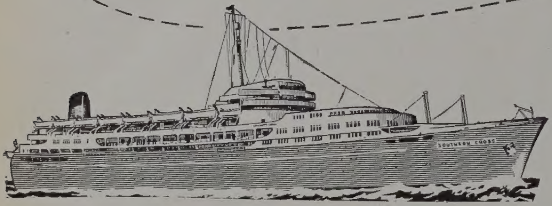
CAR & GENERAL INSURANCE CORPORATION, L^TD.

83 PALL MALL, LONDON, S.W.1

South Africa
Australia
New Zealand

*Passenger
Services
Via Cape or
Via Panama Canal
by First Class
or Tourist Class
Vessels*

SHAW
SAVILL
LINE

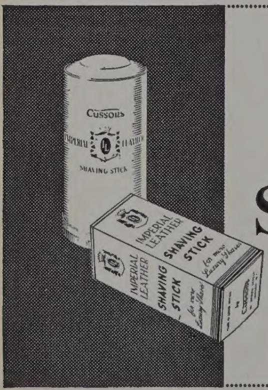


*The Tourist-Class SOUTHERN CROSS makes
Four Round-the-World Voyages a year*

Passenger Office: 11A LOWER REGENT STREET, LONDON, S.W.1. Telephone: WHItehall 1485 or apply local Travel Agent

---

A man's job!



Cussons

IMPERIAL LEATHER

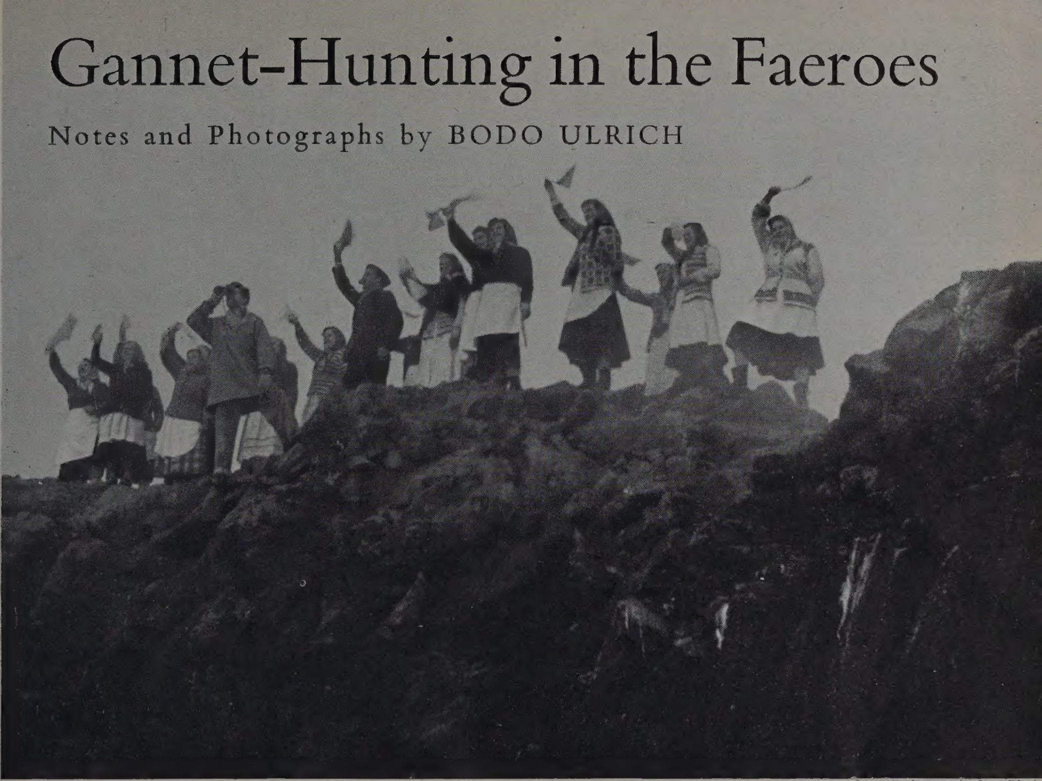
Shaving Stick

*In plastic case 2/-
In carton 1/3*

After the first try you will be converted to Cussons.

Gannet-Hunting in the Faeroes

Notes and Photographs by BODO ULRICH

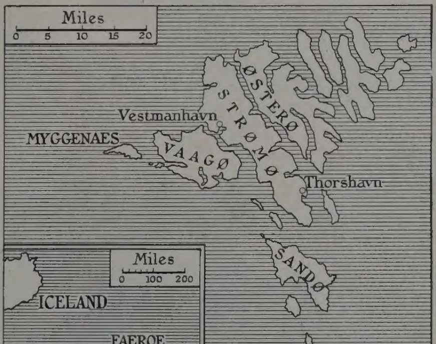


All photographs from Black

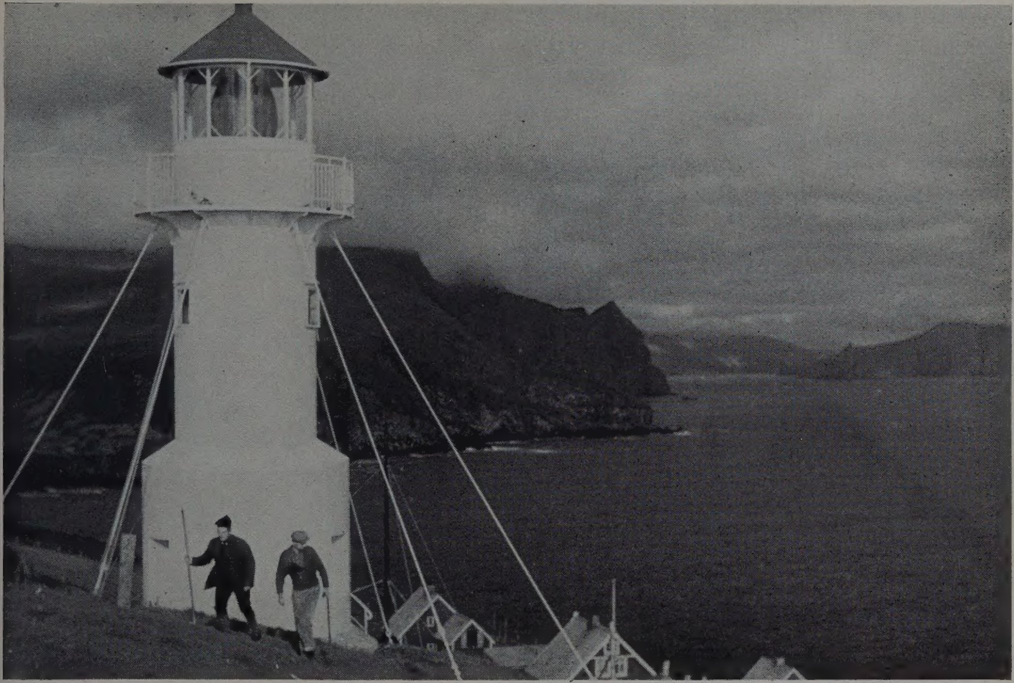
Every year in October the gannets fly out into the ocean, and every year on January 25 they return to Myggenaes. On that day the women of the island, in white aprons, stand on the edge of the cliffs to greet them with shouts of joy because these birds provide them with a traditional food

BETWEEN Scotland and Iceland, on the broad and lonely North Atlantic Ocean, lie the Faeroe Islands—twenty-one of them, treeless and bare. The most westerly of these Danish islands is Myggenaes, or Mykines, as it is called in Faeroese. For weeks on end it is weather-bound and even fishing-boats cannot survive among the treacherous rocks and currents of the surrounding waters. The radio is then the only link with the outside world: a lighthouse flashes its warning to passing ships.

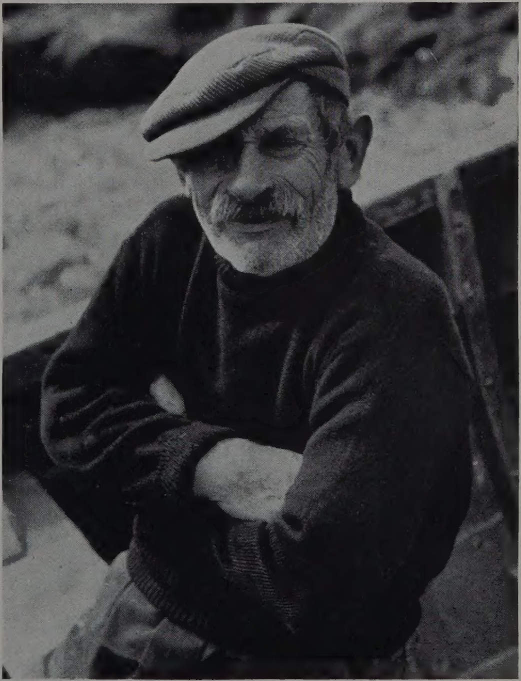
It is a haunt of sea-birds, and its hundred or so inhabitants are still steeped in the old Viking traditions. Life is hard on Myggenaes, a constant struggle for the means of existence. Each year its people collect large numbers of the sea-birds that breed on the island and form a welcome addition to their scant food-supplies. The birds they eat are mostly puffins, but North Atlantic gannets help to vary the diet. The following photographs show how the gannet-hunt is conducted.

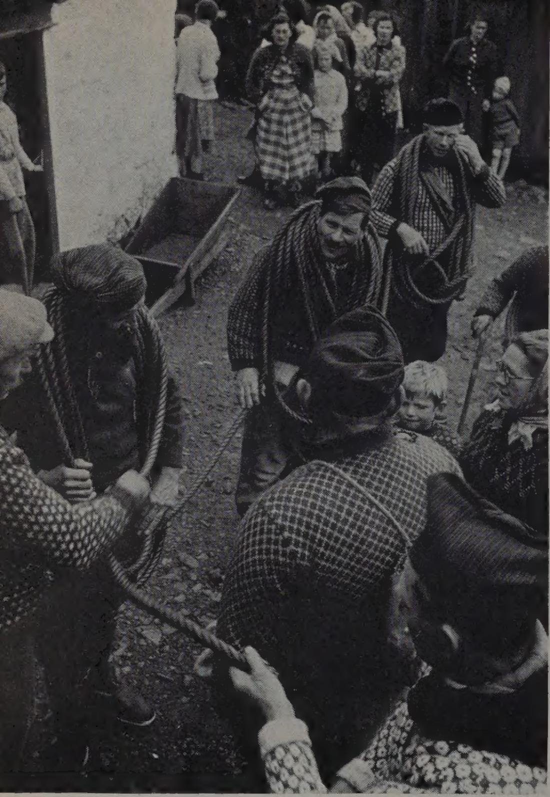


A. J. Thornton

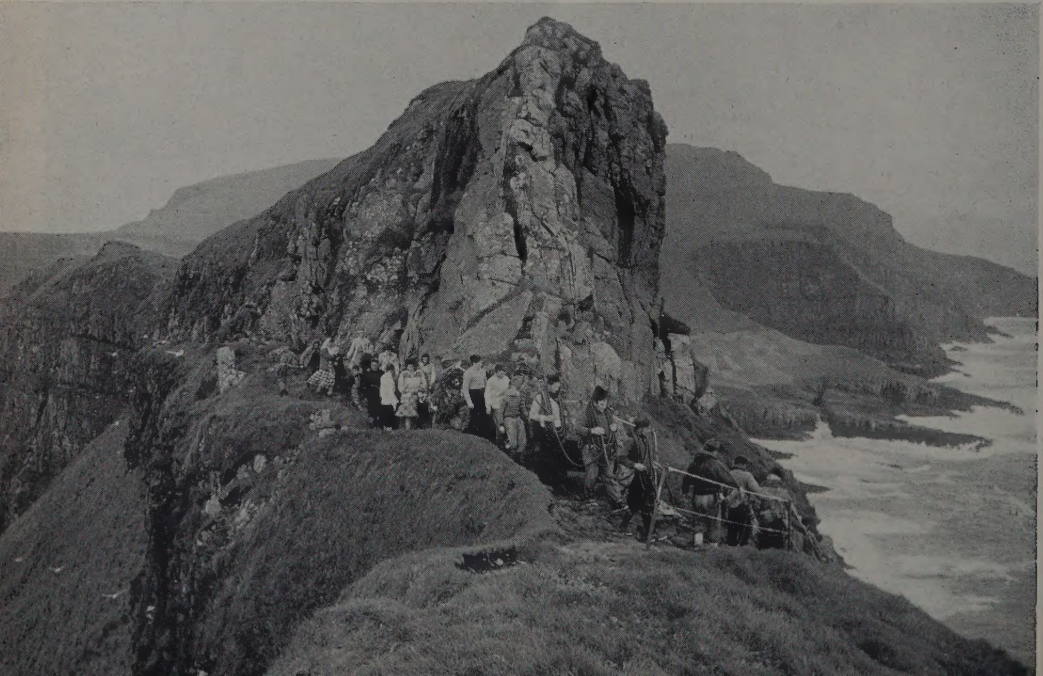


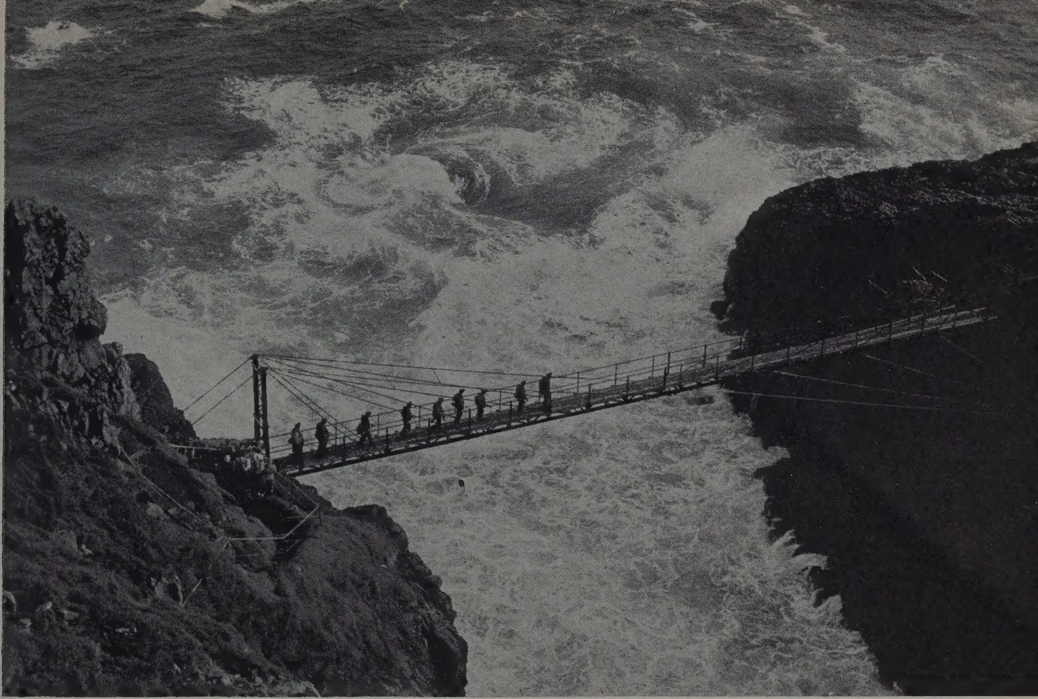
(Opposite, top) *The hundred or so inhabitants of Myggenaes, the westernmost of the Faeroe Islands, live in Myggenaes-Bygd, the island's only village. Its houses are mostly of timber, with turf roofs; from a distance they look like gaily painted toys against the bleak, treeless, windswept landscape.* (Opposite, bottom) *Myggenaes has no proper harbour, and when storms blow, as they frequently do in these lonely islands, the small boats are drawn up out of harm's way.* (Above) *The lighthouse, an object of great pride, is tethered against the wind.* (Right) *The islanders are sheep-farmers and fishermen combined. Although the climate is not unduly cold, owing to the influence of the Gulf Stream, it is always windy and the summer is short, so that food-crops are difficult to grow and the islanders mainly live on fish and mutton, salted or wind-dried*



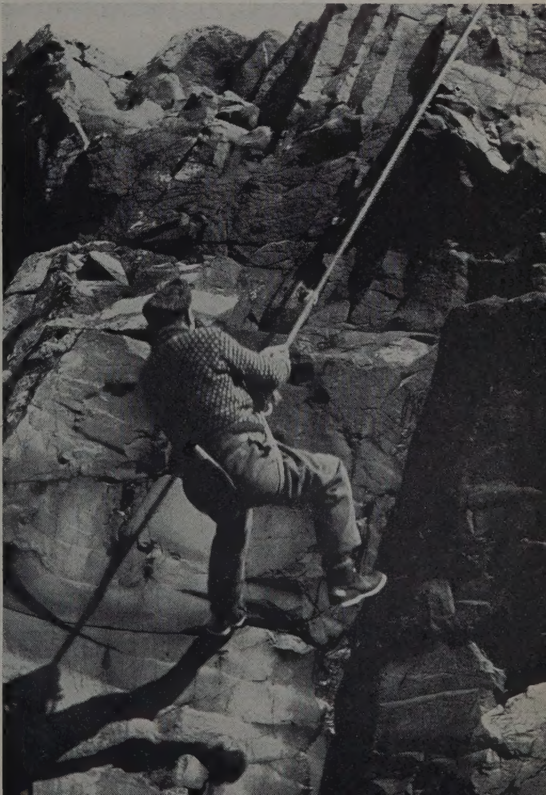


Sea-birds form a welcome addition to a monotonous diet. Puffins are the chief ones eaten, but the people of Myggenaes also collect some of the gannets which breed on the island. They set about their gannet-hunting in a traditional way in September, when the chicks which were hatched in the spring are half-grown. The principal hunting-grounds are the breeding-places on the cliffs of a rock called Flatidrangur and, at the end of the month, on Myggenaes Holm, a small islet to the west of Myggenaes, to which it is joined by a bridge. (Left) *Ropes are needed to lower the men to the nests on the steep cliff-face. It is a dangerous pursuit that can result in the loss of human life.* (Below) *Old and young turn out on the day: women and children accompany the men along the path—*

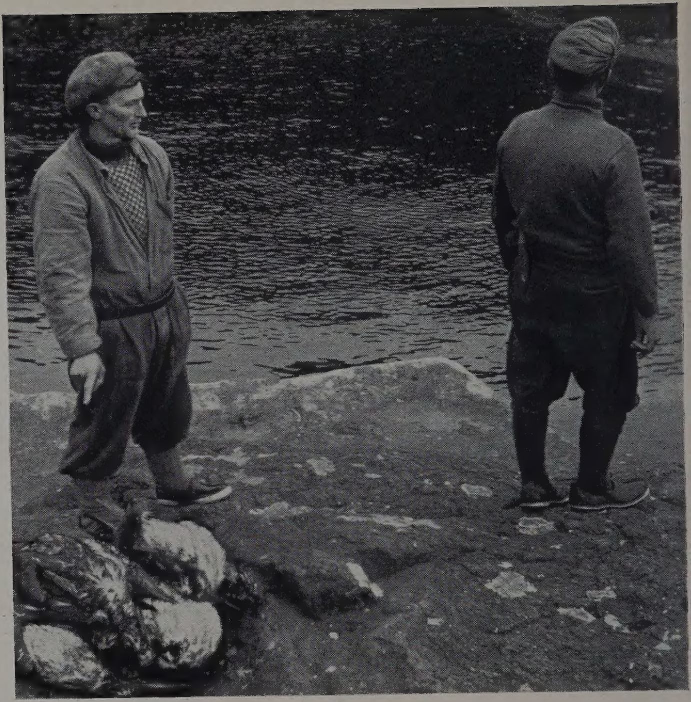




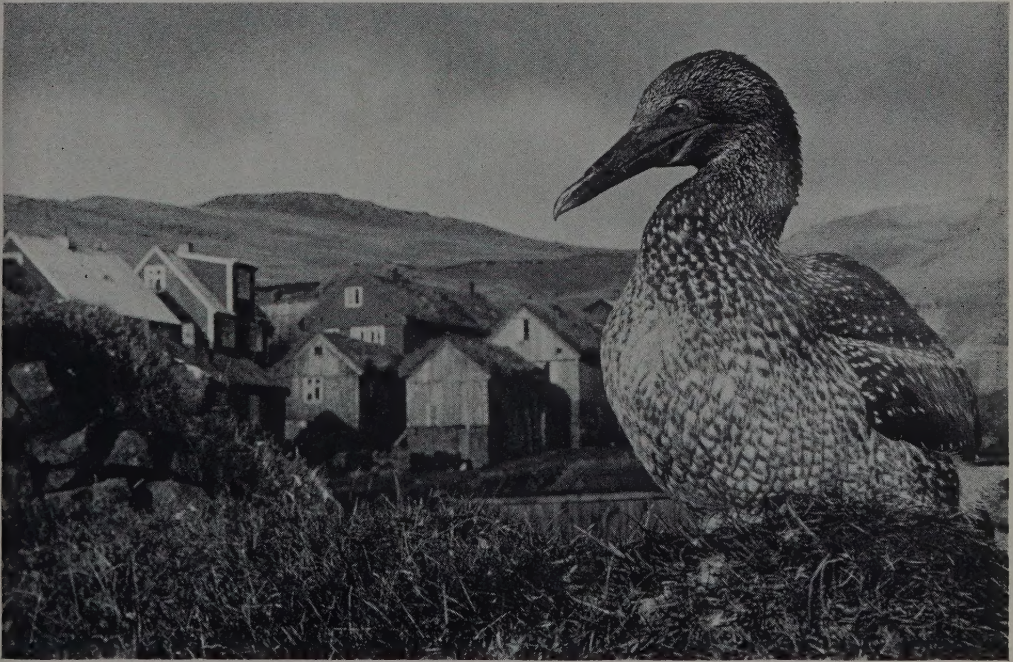
—as far as (above) *the bridge. Before this was built a rope was used to cross, hand-over-hand, between the two. Here the men are left to continue alone. The women do not say good-bye because they hope to see their menfolk, safe and sound again, after a successful night's catch; but they well know that many have never returned from past hunts.* (Right) *At various spots along the cliff-edge the men are lowered by rope some 200 or 300 feet down the face, a hazardous and difficult descent in the dark. By midnight the last man is in his place. A signal is passed from mouth to mouth and the men begin to collect the sleeping birds, quickly wringing their necks with practised hands. Then they settle down to wait for daybreak when they and their catch are hauled up the cliff to safety*



Gannets—the people of the Faeroes call them "sula"*—caught for food are distributed in accordance with an old tradition. Some of the birds will be eaten fresh; others, salted or dried, raw, in the wind, are stored for later consumption.* (Below) *In this form they are handy for taking on fishing trips*



(Opposite, top) *The people o Myggenaes dance in a circle wit their arms linked. Thus they celebrate the safe return of the menfolk from their dangerous expedition to collect gannets for food* (Opposite, bottom) *Some of th young gannets are brought to th village alive and are tended unti they are old enough to fly awa*



Cosmopolitan Tropical Trees

by F. KINGDON-WARD, O.B.E.

For the botanically uninstructed, one of the most puzzling aspects of plants is their changing geographical distribution: which, we ask, is the 'native' and which the alien immigrant? Such changes are strikingly illustrated by the flowering trees herein described by Mr Kingdon-Ward, whose journeys as a botanical explorer are known to a wide public through his books and broadcasts

THOSE whose knowledge of the tropics is gained chiefly from the cinema are usually disillusioned at first sight of a tropical forest seen from the deck of a ship. Where, they ask, are the fantastic shapes, the brooding silence pierced by the staccato cries of unseen animals, the bird-winged butterflies—above all, the glorious Technicolor? Nor is their disappointment surprising. In real life the general colour of the jungle is a rather dull green, verging on black in the shadows, whereas in the open it reflects the dazzling light. The shapes of the trees are lost in the general amorphousness; the flamboyance is altogether lacking. On the other hand, no-one can fail to be struck by the way in which many tropical cities are laid out—at least their residential quarters, parks and open spaces, all planted with 'flowering' trees, and the hot dusty roads with shade trees.

These trees have obviously been selected with an eye to their usefulness and beauty over a considerable period of time. The observant traveller may be surprised to see the same trees lining the roads in Rio de Janeiro that he had seen in Zanzibar and Bombay—and the same that he will see again in Colombo, Lagos and Djakarta. Surely, he asks, the same trees don't grow all over the tropics? How is it that so many towns are planted with the same species and that these are, so to speak, tropically cosmopolitan? In what way are they related to the local flora?

At this point we must differentiate clearly between the flora of a region and the vegetation. The flora refers only to the *species* found, and their relationships. The vegetation refers to the *type* of life-form dominant in the region, as forest or prairie, swamp or alpine mountain top. In forest, of course, the dominant life-form is the tree; in the prairie it is grass; on the alpine top, scrub or cushion plant, and so on.

A tropical *flora*, though it may contain many beautiful flowers never seen in colder climates, usually has relatives in the temperate zones. But tropical *vegetation* is different from temperate vegetation, as the layman can see for himself, though he might find the difference difficult to express in words.

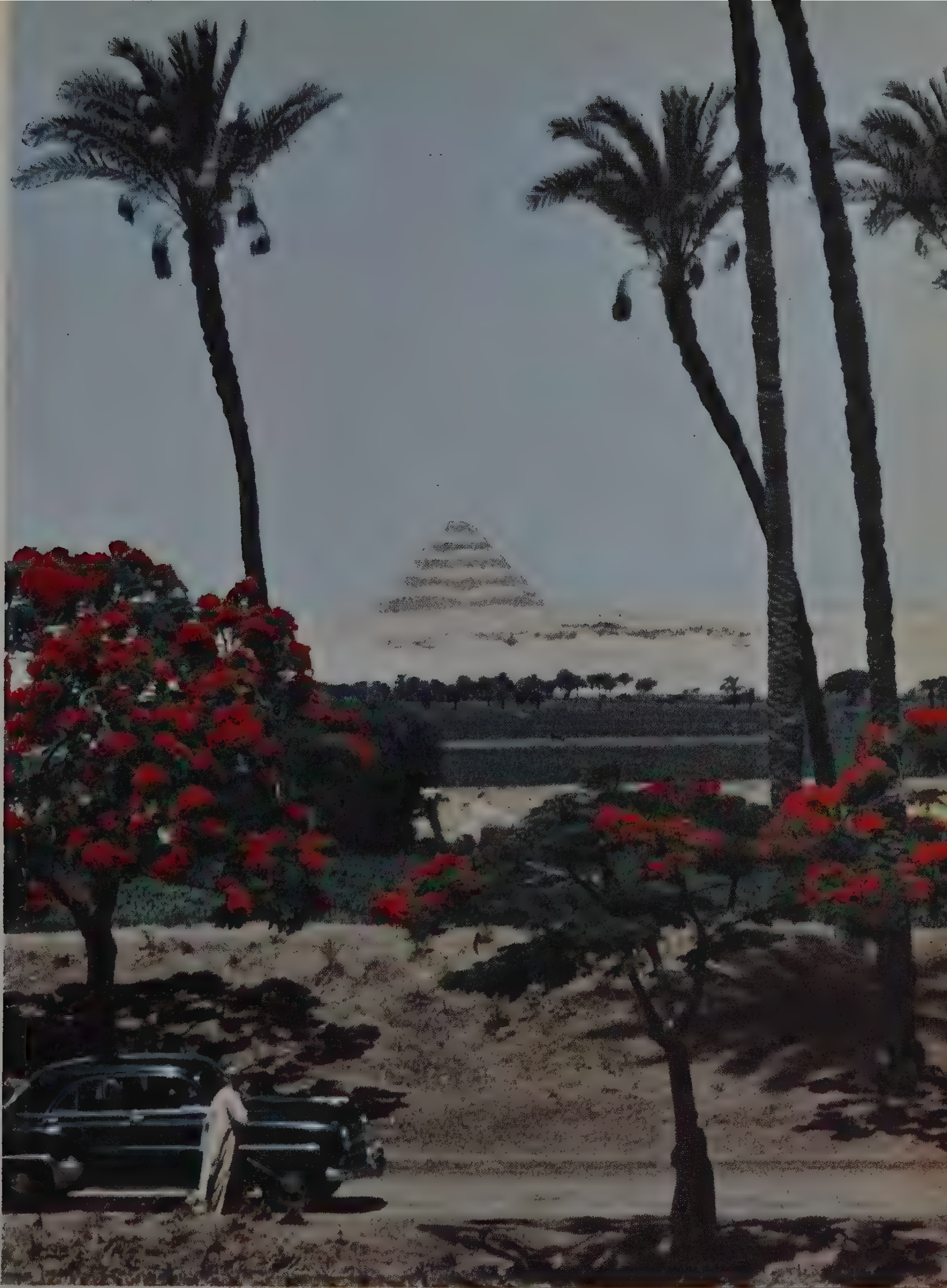
Exuberance of life everywhere and luxuriant growth are tropical attributes, signifying the best possible conditions for plant life generally. There are a greater number of species (for the same area) in the tropics than outside. But the land area of the belt in which these species grow is smaller than that of the temperate belt—about 23,000,000 square miles as compared with 29,000,000 square miles in the temperate zones. Not more than half of this tropical belt is forested, and much less than that is tropical evergreen rain forest, which is the highest expression of vegetation on earth. Thus the larger area of extra-tropical land may have an absolutely larger flora.

The tropical evergreen forest, however, has certain distinctive features, especially the great variety of tall unbranched trees with wide-spreading umbrella-like crowns forming a closed canopy overhead, followed by a second lower tier to stop up the gaps; as well as such weirdly shaped trees as palms, screw-pines and cycads.

Another feature which differentiates the tropical from the less favoured temperate zones is the presence of certain groups of plants the species of which are unrelated to one another, but are alike in their mode of life. Two such groups exhibiting a common life-form are woody climbing plants (lianas) and epiphytes (or plants which grow on larger plants, especially on trees).

In the tropics scores of climbers, with cord-like or ribbon-like flattened stems, reach the tops of the tallest trees, often completely covering their crowns with a mantle of alien vegetation; they are most abundant in evergreen tropical rain forest. Any close-up view of such a forest will show epiphytes in variety, but they are details, lost in a distant view.

The flowering trees, therefore, which catch our eye with brilliant blossoms in or near



Kodachrome

Telford H.

Delonix regia, *the Flamboyant tree, planted along a canal bank in Egypt. Native to Madagascar, it grows in diverse climates; for example all over India, where it is known as the Gold Mohur tree*

ois Johnson

Kodachrome

Bougainvillea in a garden in Jamaica. From its home in South America it has been transplanted throughout the tropical and sub-tropical world and different-coloured varieties have been bred

tropical cities are not the most characteristic vegetation of the tropics. Nevertheless they *are* tropical species and their distribution is limited despite their apparent 'cosmopolitanism' within the tropical zone. Although the distribution of plants over the earth's surface is changing continuously and has always done so, every living plant is more or less adapted to its environment and has a certain tolerance to external factors, the limits of which must not be overstepped.

Amongst a complex of interacting factors which influence the distribution of flowering plants, the most important is climate. Temperature maxima and minima, rainfall, and humidity are paramount. Man, too, though in quite a different way, is important—more so, perhaps, than he realizes. And compared with Nature, his acts are sudden, whether deliberate or not.

If you visit the Alps and dig up a gentian or a primula with intent to transplant it to your rock garden in England, you are deliberately introducing it into a new country where it did not previously grow. However, you are not really extending its geographical distribution. That is only affected if you allow the plant to escape into the surrounding country, and *then* only if it survives in competition with the native flora. The chances are that it will survive only so long as it is looked after and cared for. But as a cultivated plant, it has no more become a British plant than a lion at the zoo has become a British mammal. It is still an alien.

Nevertheless, for thousands of years man has been carrying about with him, on his migrations, plants familiar to him in his original homeland, planting them in the new lands where he has settled. This he does either because they yield food or drugs, or for sentimental reasons. Usually he finds it necessary to cultivate them, which consists largely in stifling all outside competition from other plants. Occasionally, however, they run wild, and flourish even more than they did in their homeland. (This must often have happened in Nature also, when a chance seed germinated outside its prescribed area.)

But perhaps more plants have been distributed by man unintentionally, especially during the last two or three centuries. Huge quantities of grain are moved about the world by ship today, and it is impossible that the seeds of other plants are not frequently mixed with the grain, whether it be wheat, rice, maize, or anything else. That is perhaps the commonest way in which 'weeds' are spread unintentionally; but there are many other ways.

Insufficient credit has been given to man during his short span on earth—short compared with any geological epoch, but longer than is generally realized—for dispersing the most useful and beautiful plants over such a wide area. This also is well illustrated during the last few centuries, most prominently in the tropical zone and in the case of the flowering trees which started us on our present enquiry. Here man has been practising his role of distributor with notable energy and effect. He has selected scores of the most decorative tropical trees from China to Peru, and planted them in the cities where they are most likely to grow and serve their purpose. Many have thus become cosmopolitan, though it may be doubted whether even the commonest can compete on equal terms with the native flora.

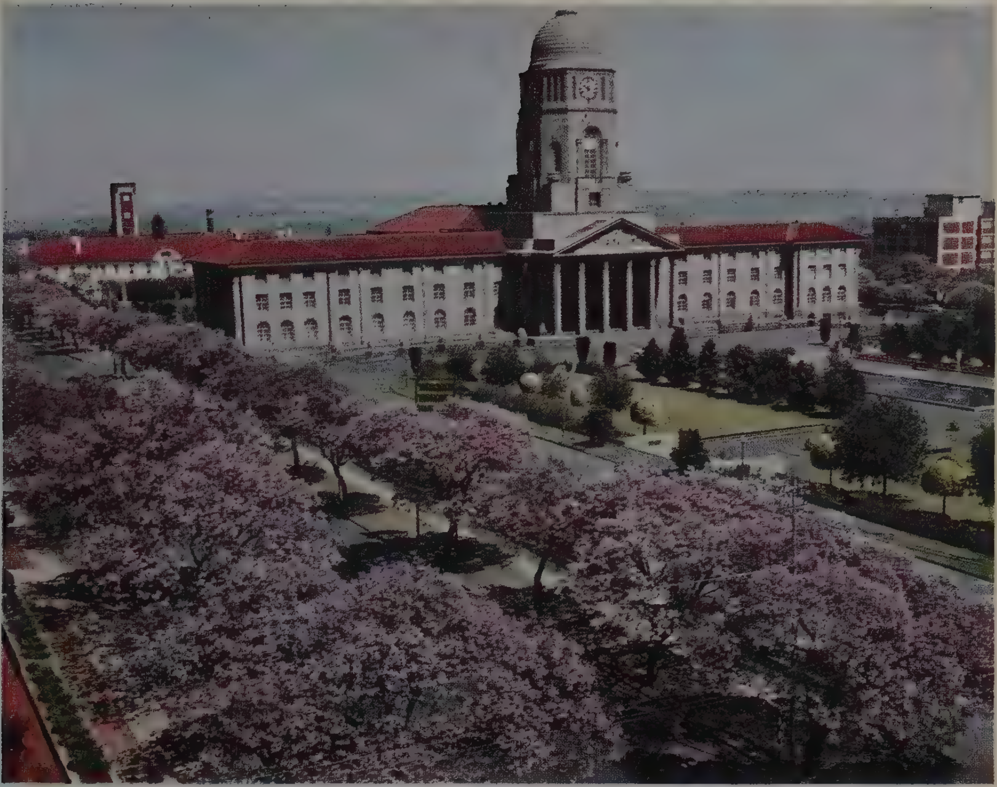
For example, the Gold Mohur tree, *Delonix* (formerly *Poinciana*) *regia*, known also as the Flamboyant, grows all over India. There is at least one in every up-country railway station platform; but one never sees it in the jungle, for it is native to Madagascar. It grows equally well in such diverse climates as Colombo and Mandalay.

Equally widespread is Bougainvillea—a large flamboyant scrambler, native to South America. It is particularly loved by the planners, and is grown in every country where the summer heat is sufficient to ripen the wood. Since it can stand a fairly low winter temperature, so long as the summers are hot, it flourishes far inland, in Baghdad, and equally well in coast towns like Bombay. Its

Originating also in South America, the orange-flowered climber Bignonia venusta *now decorates many public gardens in the tropics. Here it forms a hedge in the former Viceregal garden in Delhi*

Kodachrome *W. Blois J*

W. Blois Johnson *Kodachr*



Ektachrome *By courtesy of the South African Tourist Corporation*

Deciduous tropical trees need the seasonal wet and dry alternation found in monsoon climates; they flower in the dry season and drop their leaves as it gets hotter. (Opposite) *A very lovely flowering tree, indigenous in India and Burma, which has travelled round the tropics, is* Cassia fistula: *this tree stands in front of the Cathedral, Spanish Town, Jamaica.* (Above) *Also grown in climates of the monsoon type, especially in African cities, is the Jacaranda, by origin a South American tree. The City Hall, Pretoria, boasts a massed display of great splendour.* (Right) *Three young expatriates in Nigeria inspect Jacaranda blossom, as exotic as themselves*

Kodachrome *W. Blois Johnson*

By courtesy of the Bermuda News Bureau

Ektachrome

W. Blois Johnson

Kodachro

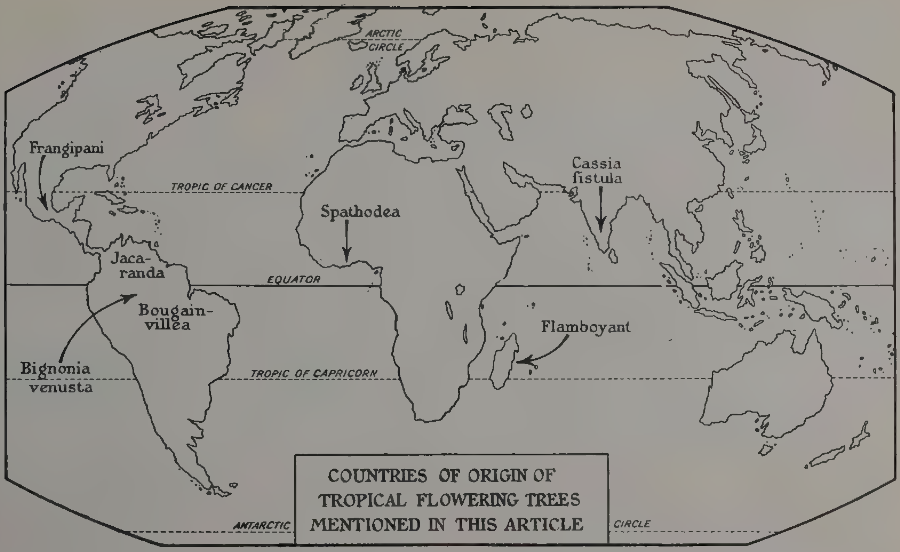
Kodachrome W. Blois Johnson

The Hibiscus needs to grow in the sun and bears flowers for most of the year, but especially in the hot weather. It has been bred and crossed by human beings for so long and in so many places that the origin of any cultivated species is lost. Many of the favourite modern hybrids come from Hawaii. (Opposite, top) *The climatic range of the Hibiscus includes Bermuda.* (Bottom) *The Hibiscus flower.* (Above) *The Frangipani tree is so commonly associated with temple courtyards in Asia that its blossom has become known as the "temple flower"; yet it originated in the American hemisphere. Frangipani was the name of a 12th-century Italian nobleman who invented a scent more than three centuries before Europeans discovered the New World. There, all over the tropics,* Plumeria *was found and the scent of its flowers was identified with the famous Italian scent. The popular name has stuck; though it applies specifically to the red-flowered* Plumeria rubra *of Mexico, Ecuador and Jamaica*

Some tropical flowering trees are evergreen and will only flourish in an equatorial climate, where rain at all times of the year is the rule. Such is Spathodea campanulata, *brought from West Africa to show its fiery orange-red flowers in Assam, Java, Malaya and the highlands of Ceylon*

s Pike

Kodachrome



COUNTRIES OF ORIGIN OF TROPICAL FLOWERING TREES MENTIONED IN THIS ARTICLE

A. J. Thornton

purple colour is so blatant that it will go with nothing; nor does it need to. It is free-flowering and grows to a great size; hence it can provide all the colour needed. Of late years, by selection and crossing amongst several known species, less aggressive colours which mix well have been raised.

Then there is the "Indian" Tulip tree, which is not Indian, hailing from West Africa, and has nothing to do with what has long been known (though with less reason) as the Tulip tree in Europe and America. The Indian Tulip tree (*Spathodea campanulata*) bears large flowers of a fiery orange, suggesting tulips perhaps, amongst the green leaves, where they show up vividly in the rainy season. It is grown in Assam, Java, the Ceylon highlands and in many other places, for the beauty and gorgeousness of its flowers.

Another orange-flowered tree, a climber from the central parts of South America, is very popular in eastern India nowadays, where it is used to make garden hedges. This is *Bignonia venusta*, which in spring becomes a vivid wall of bright orange.

Cassia fistula, the Indian Laburnum, on the other hand, though not a Laburnum, *is* indigenous in India and Burma; and it also has travelled round the world, its sole passport to the New World tropics being its beauty when in flower.

The famous 'temple flower' or Frangipani (*Plumeria*) of the Eastern tropics, which the Siamese, Burmese and others have taken to their hearts, is planted in temple courtyards. Thus it is inevitably associated by modern travellers with the East. Yet compared with the age of the temples themselves, few of which are really old, it is a mere parvenu. Its home is in South America.

Another South American tree of great beauty is Jacaranda, now planted all over Africa wherever it can be grown. Its flowers, which come out before the leaves, are mauve—a colour rare amongst trees—and a massed display in full bloom is an unforgettable sight. There is a Jacaranda avenue in Pretoria in the Union of South Africa which in the spring vies with any avenue in the world for splendour.

No tropical garden would be complete without its Hibiscus hedge. Over 200 species are known, but comparatively few are garden plants, and these have been bred and crossed to such an extent that the original species have been lost. Thousands of named varieties and crosses have been raised in Hawaii and distributed all over the tropics of both hemispheres, so much so that the Hibiscus has come to be identified with Honolulu; but actually the species are found wild in almost all tropical and sub-tropical lands. The most popular garden species all seem to have originated in southern China and India, and the Chinese were no doubt responsible for their early cultivation and distribution in the East.

The list of universally admired tropical trees could be greatly extended, but if one were to mention even half of them, there would be a danger of their recital degenerating into a mere catalogue.

An important point about these widely grown tropical trees is that they must be easy to propagate. It needs a great many trees to make their mark even on one city, and unless they come easily from seed, or can be grafted, it would take a very long time to spread them. One has only to look at this selection of trees to be able to draw certain conclusions as to the conditions under which they grow in Nature. To begin with, though all of them come from the tropics, it is clear that they must live under very different climatic conditions, and that therefore they cannot *all* be cultivated in any one district simply because they are all tropical. There must be at least two contrasted climates. Jacaranda, for example, and *Cassia fistula* shed all their leaves annually. They are deciduous trees, like our own oak and beech, though they are not bare for so long. They open their flowers in response to increasing heat, before the new leaves come out, thereby making an unsurpassed display of colour. Clearly these two inhabit a monsoon climate—a wet followed by a dry season. They flower in the dry season, and expand their leaves as the rainy season begins and the flowers fade. Hence they will hardly grow in an equatorial climate where there is no well-marked division into wet and dry seasons, and rain at all seasons is the rule.

On the other hand, the West African *Spathodea* is an evergreen. It must grow in the equatorial evergreen forest, flowering at the hottest rather than at the wettest season of the year. That is why it is a success in places like west Java, the Ceylon hills and in Malaya.

Botanical gardens have played a large part in this universal exchange of tropical trees; and as the world becomes more opened up, more industrialized (with yet more destruction of forest), they must play an ever-increasing role. The first function of a botanical garden is evidently to bring together and grow the plants of the country; and since such a garden must appeal to the public, emphasis is laid on the most beautiful as well as the most useful or interesting plants.

Its second function is to grow as many alien plants as it can; and here the emphasis is quite definitely on the beautiful and useful. As to what alien species will do well and can be easily propagated, this is largely a matter of trial and error. But obviously, the more beautiful a flowering tree is, the more people will be ready to try it in their private grounds, and the greater risk planners are likely to take when laying out new streets or residential areas.

Thus botanic gardens in all parts of the world exchange information and send plants or seeds to one another with which to experiment. In the course of a century, or even in fifty years, a tropical city may be transformed by the successful introduction of a new flowering tree. Certainly no such city need be entirely dependent on its own flora for decoration; and few large ones, in fact, now are.

Is there anything which marks these tropical trees off from other trees—distinguishes them at a glance, say, from temperate trees? Any peculiarity common to them all, which is the hall-mark of the tropics? We have already noted that at least two tropical climates are involved, and the contrast between them is perhaps as great as that between either of them and a warm temperate climate. Apart from a certain flamboyance of flower, there is little to distinguish these trees from many temperate ones. In flower they are, of course, far more gorgeous than most of our own native trees, such as beech, oak, willow, alder, birch, and the rest. But going further afield into the wide temperate lands, they are not one whit more lovely than the finest of the magnolias, cherries, rhododendrons, and many others. *Magnolia campbellii*, for example, is peerless amongst trees which flower before the leaves come out; as is *Rhododendron macabeanum* (perfectly hardy in Britain) amongst evergreen trees; the horse-chestnut (introduced into Britain four centuries ago), though deciduous, produces flowers and leaves at the same time and is a magnificent summer sight, especially when planted in avenues. Again, the 'Carmine Cherry' of the Himalayas as a temperate tree is incomparable among its kind; and even parts of North America where winters are hard can rejoice in *Cornus florida*, the Flowering Dogwood, whose blossoms star the leafless edges of the woodlands in early springtime.

While, therefore, the vegetation of the tropical zone is more luxuriant than that of the temperate zones and its forest appears much richer when seen in the mass, town-planners in the tropics have really no great advantage, in the choice of flowering trees at their disposal, over similar authorities elsewhere. Furthermore the tropical forest lacks altogether the wonderful autumn colour of the northern broad-leaved forest. And that is a loss indeed.

Explorers' Maps

XII. North America from Sea to Sea, 1600-1800

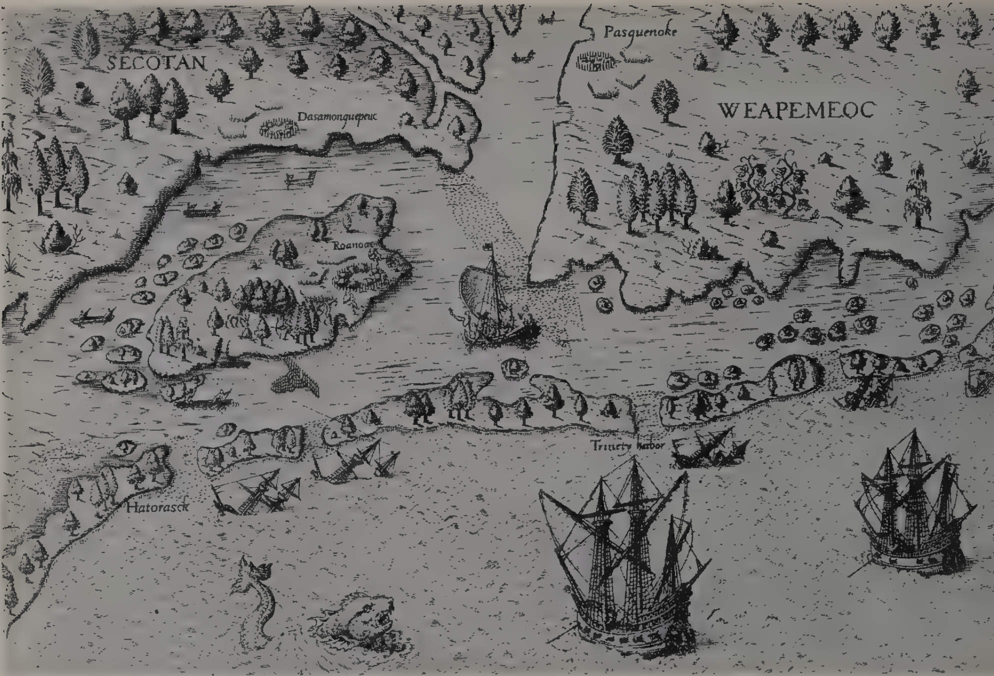
by R. A. SKELTON

This series of articles by the Superintendent of the Map Room at the British Museum presents, in regional order, some episodes in the history of exploration for which the evidence of maps is specially interesting or accessible. The text is to be read as a commentary on the maps and not as a connected history of discovery. Further exploratory journeys—and famous ones—were, of course, made in North America after 1800; but by then its broad cartographic outlines were complete

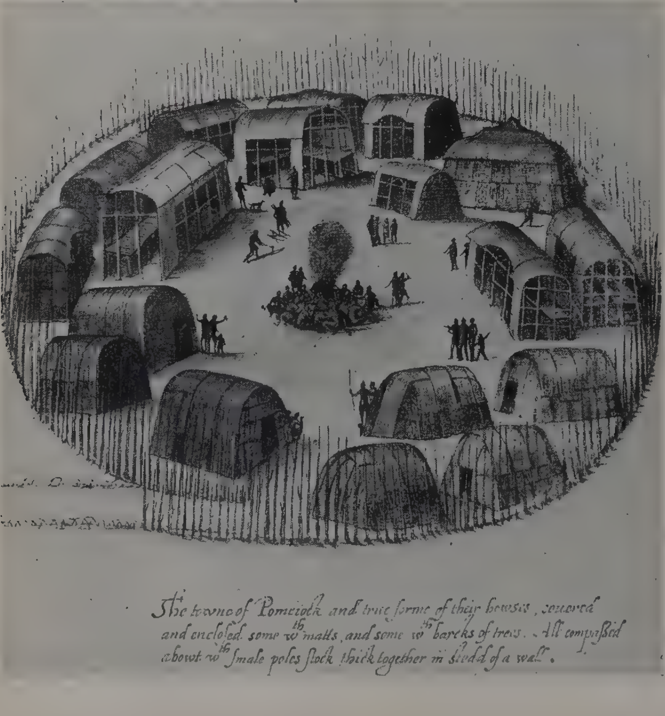
DRAKE's return from the Pacific in 1580 and the failure of expeditions to discover northern passages to Cathay revived English interest in "western planting", or settlement in the temperate lands of America to the north of the Spanish colonies. In the propaganda writings of Richard Hakluyt this was advocated as an export market for the "utterance" of English woollen goods, as an outlet "for the manifolde imploymente of nombers of idle men", as "a great bridle to the Indies of the Kinge of Spaine", and as a base from which "the Northwest passage to Cathaio and China may . . . be searched oute as well by riuer and ouerlande, as by sea". Hakluyt rested the English "title which we haue to that part of America which is from Florida to 67 degrees northwarde" on the Cabot voyages; and to Raleigh, who in 1584 succeeded to Sir Humphrey Gilbert's patent for colonization, he therefore suggested "y^{or} best planting wilbe aboute the bay of the Chesepians". While Gilbert's expedition of 1583 had been directed to Norumbega, Raleigh in 1585 planted his colony further south, on the coast of the present state of North Carolina, called by the English "Virginia" (Fig. 1). Here, on Roanoke Island, in Currituck Sound, the settlers under Ralph Lane maintained themselves for a year before being repatriated in Drake's fleet. Raleigh's second colony established itself at Roanoke in 1587, but when its governor John White eventually returned to the site in 1590 he found the colonists vanished and, among the remains of their fort, he recovered three of his chests with "my bookes torne from the couers, the frames of some of my pictures and Mappes rotten and spoyled with rayne".

The Roanoke enterprise produced a noble graphic record of the land and its people. In the colony of 1585-6 John White, who may with little doubt be identified with the governor of the second colony, seems to have had instructions similar to those given in 1582 to Thomas Bavin, apparently the surveyor, artist and scientific observer in Gilbert's expedition: "drawe and sett downe the distinct places & countries by drawen plott [map] as also by writing", "specially sett down in figures the iust latitude of euery Notatious place", "also drawe to life all strange birdes beastes fishes plantes hearbes Trees and fruictes . . . also drawe the figures and shapes of men and woemen in their apparell". Raleigh had indeed been advised in 1585 to send out "a skilfull painter . . . which the Spaniards vsed commonly in all their discoueries to bring the descriptions of all beasts, birds, fishes, trees, townes, &c."; this was John White's task. Although the colonists complained that, embarking in Drake's ships, "all our Cards, Books, and writings were by the Sailers cast ouerboord", the watercolour drawings which White brought home in 1586 depict in precise and vivid detail the Algonkian Indians, their villages and daily life, and the flora and fauna of their country (Fig. 2). Of the two maps of the coast between Florida and Chesapeake Bay, found among White's surviving drawings, that on the larger scale, representing the region explored by the colonists (Fig. 3), is the most accurate map of any part of the coast of north-east America made during the 16th century.

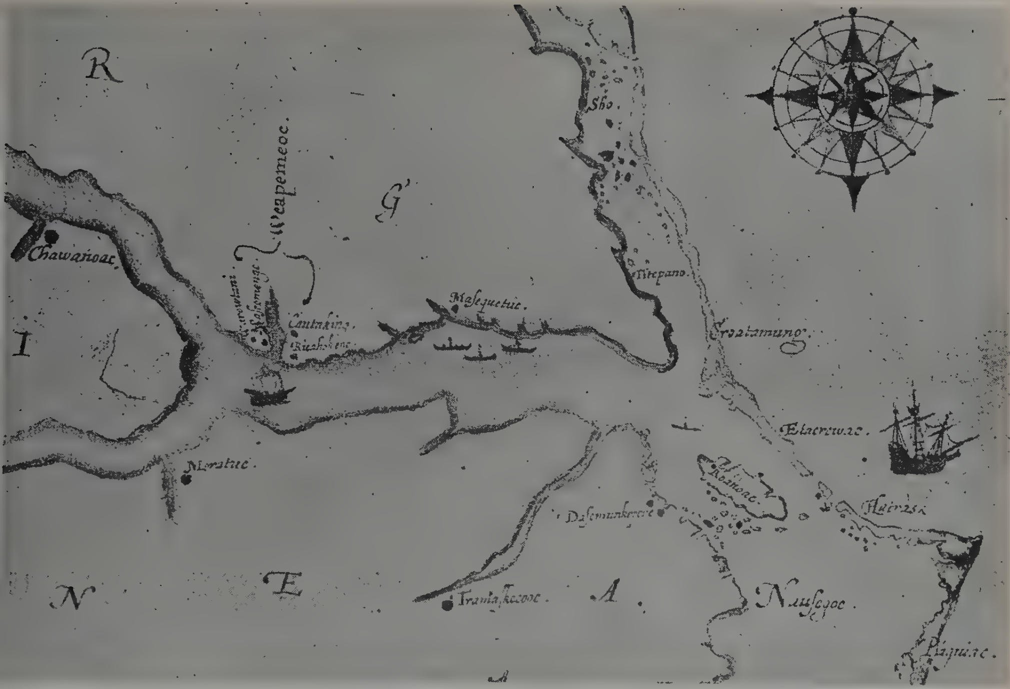
Raleigh's colonies failed, but they were the prototype of the "western planting" which bore fruit in the colony successfully founded in 1607 on the James River, 120 miles northwest of Roanoke. The "new Virginia", the first permanent English settlement on American soil, became a self-supporting community sustained by the natural resources of the country (Fig. 4). Yet its charter granted the colony rights of expansion "into the land throughout from sea to sea west and northwest", and the colonists were instructed to

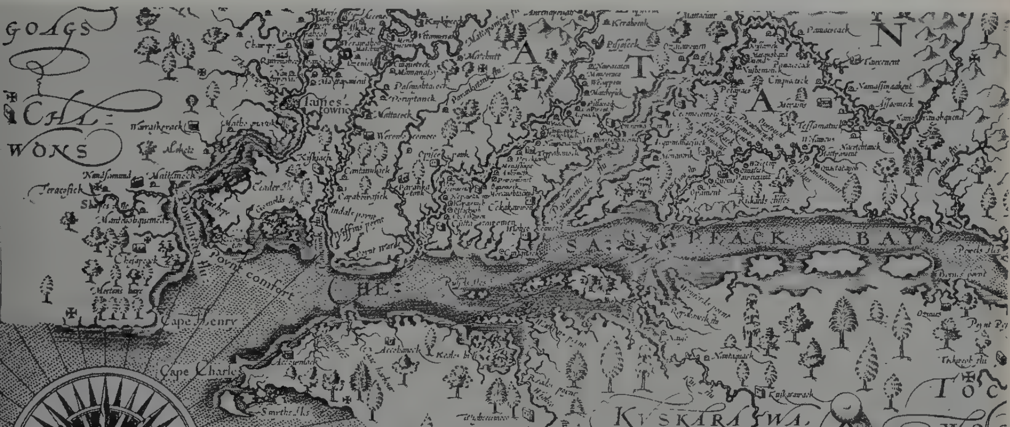


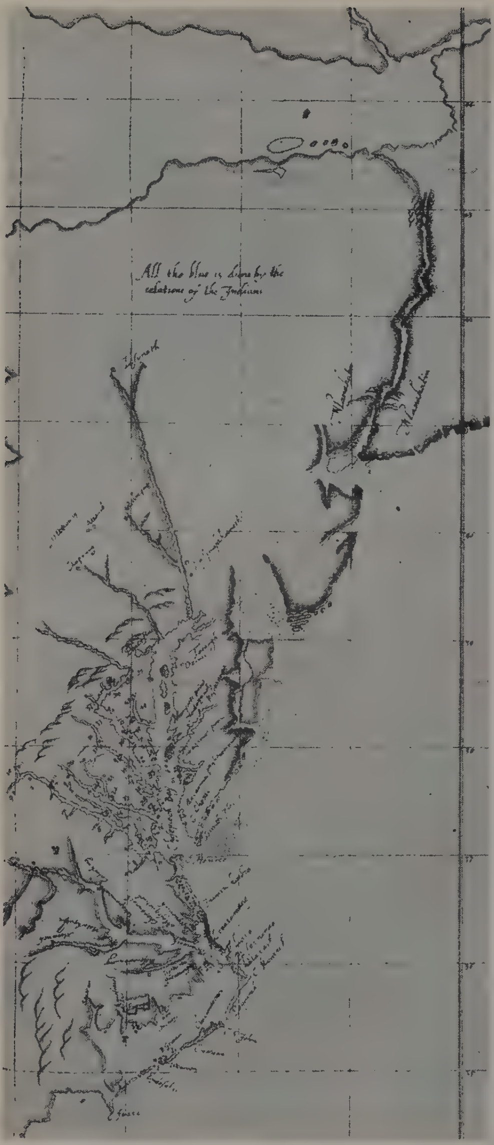
All illustrations, except two, from the British Museum


The towne of Pomeiock and true forme of their howses, couered and enclosed some wth matts, and some wth barcks of trees. All compassed abowt wth smale poles stock thick together in stedd of a wall.

(*Fig. 1:* above) "*The arriual o*
the Englishemen in Virginia" : *a*
engraving by T. de Bry, probabl
after a (now lost) map by Joh
White. Grenville's fleet, wit
Raleigh's first colony on boar
is seen arriving off the coas
The hazards of the North Carolin
reefs are shown by wrecked ships
(*Fig. 2:* left) *Pomeioc, a stock*
aded mainland village of the Alg
onkians: a drawing by John Whit
(*Fig. 3:* opposite, top) *White'*
map of "Old Virginia" on the Nort
Carolina coast; showing "Roanoac
island in the sound and the regio
the colonists explored in 1585-6
(*Fig. 4:* opposite, bottom) "*Vir*
ginia, Discouered and Discribe
by Captayn John Smith." *Detai*
from the first printed map asso
iated with the Virginia Company'
colony at Jamestown, on the Jam
River ("*Powhatan flu:*"), *recor*
ing Smith's surveys from 1607 i
Chesapeake Bay and its affluent


R
G
I
N
E
A
Chawanoac.
Weapemeoc.
Cautaking.
Ricahokene.
Masequetuc.
Sho.
Titepano.
Croatamung.
Etacrewac.
Roanoac.
Dasemunkepeuc
Moratuc.
Tramasqecooc.
Nausegoc.
Hatorask
Paquiac.


Iames towne
Chawons
Warraskoyack
Nandsamund
Chesapeack
Point comfort
Cape Henry
Cape Charles
Smyths Ils
Accomack
Chesapeack Bay
A T T A N
Kuskarawaoks
Toc wogh
and halfe
Scale of Leagues
Leagues
1 5 10 15
The Virginian Sea
Discouered and Discribed by Captayn John Smith



(Fig. 5) Detail from a map drawn in Virginia by an English surveyor and forwarded to Spain in 1611 by the Spanish ambassador in London. The Hudson River ("Manahatin") is from Hudson's voyage of 1609; the coast to the south from surveys by the colonists of Old and New Virginia

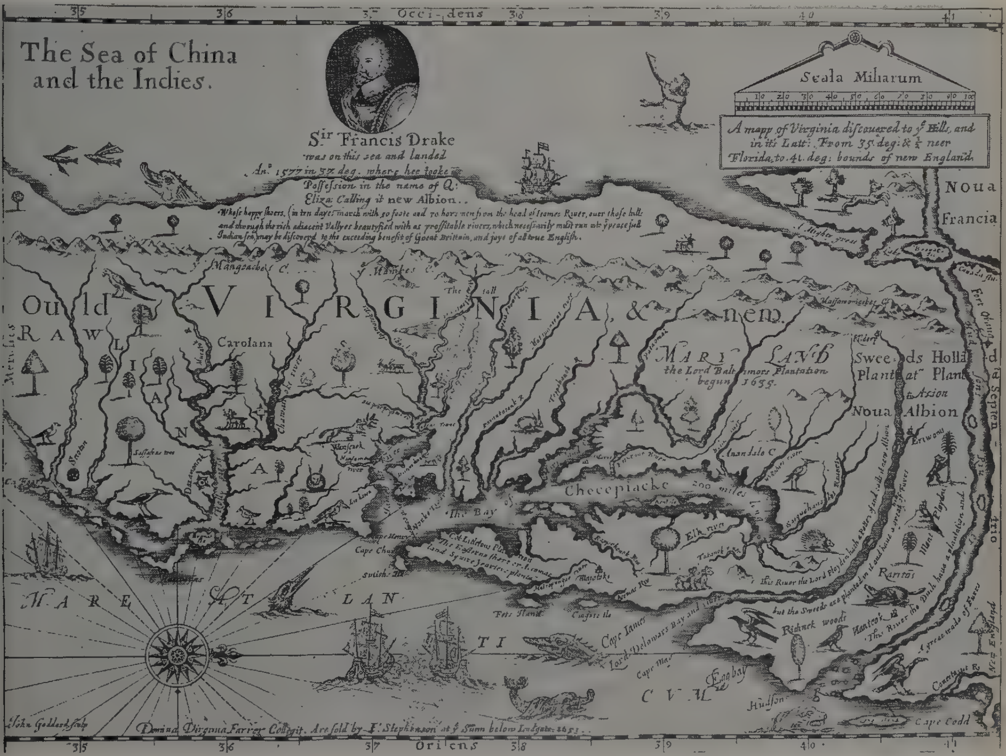
seek a river by which "you shall soonest find the other sea". Captain John Smith, governor of Virginia in 1608-9 and the first historian of the colony, explored Chesapeake Bay and the rivers flowing into it in fruitless search for a western passage; and when Captain Christopher Newport arrived with the "second supply", Smith commented satirically: "How or why Captaine Newport obtained such a private Commission, as not to returne withoute a lumpe of gold, a certaintie of the South sea, or one of the lost company sent out by Sir Walter Raleigh, I know not." Henry Hudson however, perusing Smith's letters and map at Amsterdam in 1608, conceived the possibility of a strait in the proximity of the new Virginia. In 1609, checked in his attempt on the North-East Passage, he crossed the Atlantic to the Carolina coast, examined Chesapeake and Delaware Bays, and sailed 150 miles up the Hudson River (Fig. 5). Five years later a Dutch fort was built on Manhattan Island, and in 1622 the city of New Amsterdam—afterwards New York—was founded there.

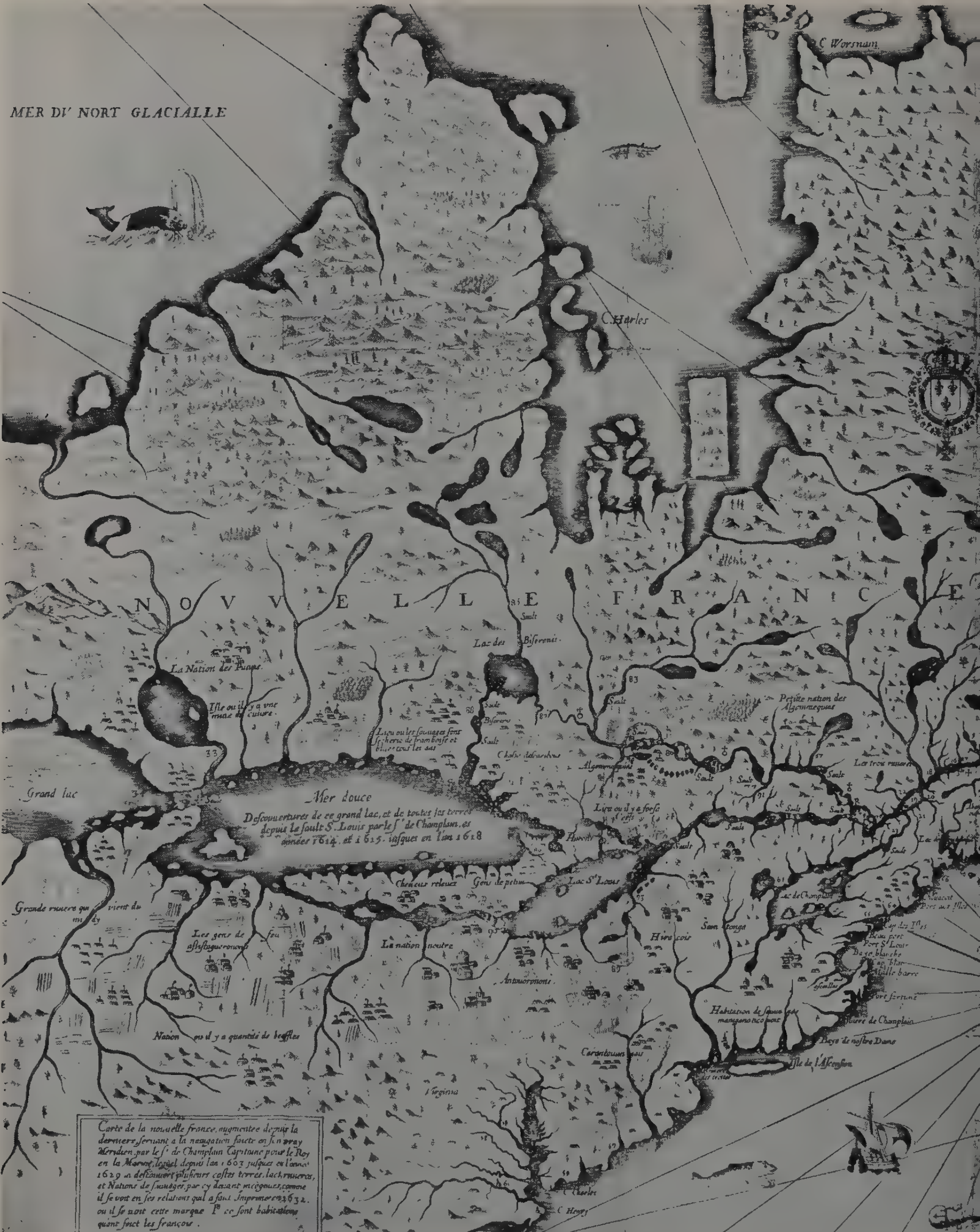
These and later colonies planted in New England and along the coasts to the south were still inspired by the old and "assured hope of a way to be made part ouerland, and part by riuers and lakes, into the South Sea vnto Cathay". This faith, nourished by Indian reports of "a great water beyond the mountains", is seen in many maps (Fig. 6). But the riverways probed by the English and Dutch colonists from the Atlantic seaboard gave little promise of the expected passage. The valleys of Virginia led up into the Appalachian Mountains, and the frontier of the British colonies was not pushed into the Ohio valley until the 18th century. The New England rivers offered routes only into the lower St Lawrence basin, and here the French were already established. From their trading and mission posts in Canada they were, within a century and a half, to penetrate the interior of the continent from the Great Lakes south to the Gulf of Mexico, north to Hudson Bay, and west to the Rocky Mountains, following the waterways along rivers and over portages, accompanying the Indians in their wars, proselytizing, and seeking trade.

Samuel de Champlain was the pioneer of this great movement in exploration. An accomplished and zealous cartographer, he recorded in a series of maps the results of his journeys from 1603 to 1616 and of those of the young men whom he sent out. His work in discovery, directed to the search for "a route to China by the north" within the temperate zone, is displayed in his last map, engraved in 1632 (Fig. 7). New France, in the St Lawrence basin, where Champlain in 1608 founded the town of Quebec, was the base from which the water routes to north, south and west were investigated; and in 1604-7 Champlain charted Nova Scotia and the Bay of Fundy. He discovered the route from the St Lawrence southward up the Richelieu River to Lake Champlain, and he knew of that to the north by the Saguenay River to James Bay, in the south of Hudson Bay; in his map of 1613 this is marked (in English) "the bay wher hudson did winter". To the west, in search of the saltwater sea, he had ascended the Ottawa River, reached Lake Huron ("Mer douce", or the Sweetwater Sea), and navigated Lake Ontario. One of his young men, the *coureur de bois* Etienne Brulé, had reached Lake Superior (indicated on Champlain's map) and had gone up the Susquehannah River and over the divide to Chesapeake Bay. Another, Jean Nicolet, was to go by canoe up Lake Michigan and perhaps over to the Wisconsin River.

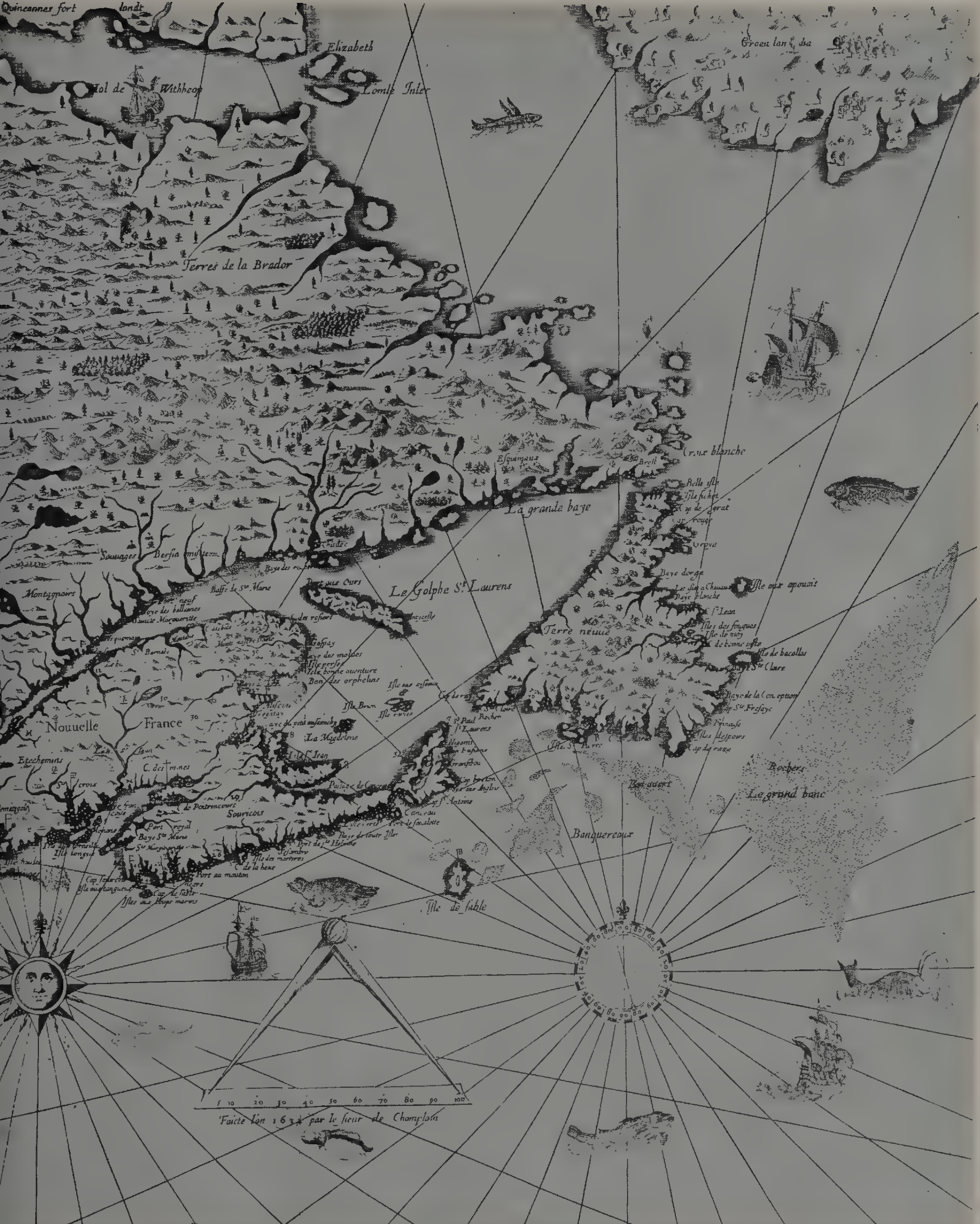
After 1663, when New France came under the crown, exploration to the south and west was pursued with renewed vigour. In 1669 Robert de La Salle, from Lake Ontario, discovered the Ohio River and descended it for some distance, although not to its junction with the Mississippi (Fig. 8). Nicolet and other earlier travellers had brought back tales of a great river in the west, "which must lead to China and Japan"; and in 1672-3 the Jesuit Fr Marquette and Louis Joliet made their way from Lake Michigan by the Fox and Wisconsin rivers to the Mississippi, which they named Rivière Colbert. Following this as far as the junction of the Arkansas, they satisfied themselves that it must flow into the Gulf of Mexico (Fig. 8). In 1681-2 La Salle went to the Mississippi by way of the Illinois and sailed down the great river to its mouth (Figs. 9, 10). His last expedition was made by sea to the delta of the Mississippi and

(Fig. 6) This map by Virginia Ferrar (1651) shows the "plantations" of the Dutch on the Hudson River, the Swedes on the Delaware and the English in Virginia and Maryland. "In ten dayes march from the head of Jeames River" lies New Albion on the "Sea of China", annexed by Drake in 1577

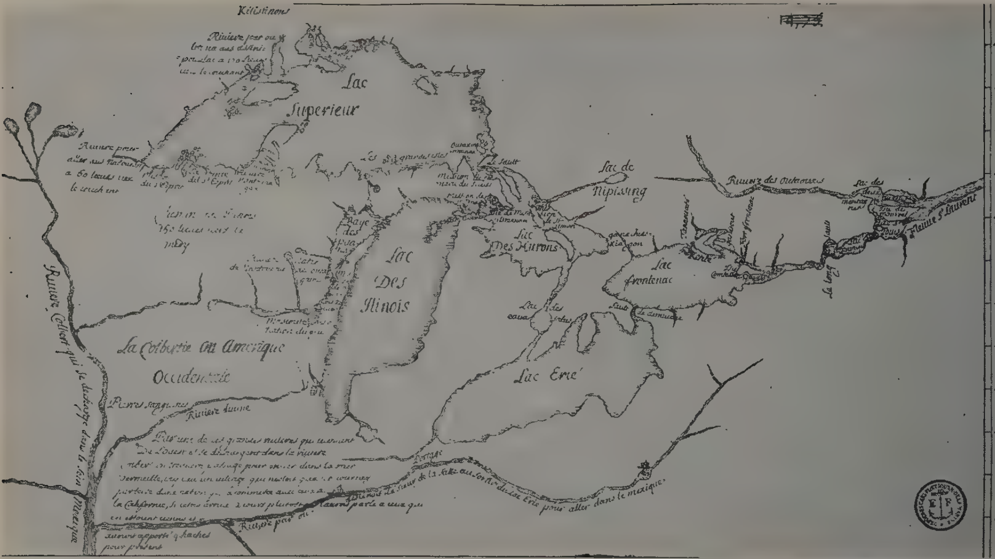

Occi-dens
Oriens
The Sea of China and the Indies.
Sr Francis Drake was on this ſea and landed An.o 1577 in 37 deg. where hee tooke Poſſeſsion in the name of Q: Eliza: Calling it new Albion..
Whoſe happy ſhoers, (in ten dayes march with 50 foote and 30 horsmen from the head of Jeames River, over those hills and through the rich adiacent Valleys beautyfied with as proffitable rivers, which neceſsarily must run into ÿ peacefull Indian sea) may be diſcovered to the exceeding benefit of Great Brittain, and joye of all true English.
Scala Miliarum
A mapp of Virginia diſcouered to ÿ Hills, and in it's Latt: From 35 deg: & ½ neer Florida, to 41 deg: bounds of new England.
Noua Francia
VIRGINIA, & new
MARI LAND the Lord Baltimores Plantation begun 1635.
Carolana
Swedes Plantat
Hollands Plant
Noua Albion
Checepiacke
The Bay
200 miles
Cape Henry
Cape Charles
Cape James
Cape May
Hudson
Cape Codd
MARE ATLANTICUM
Mangoacke C.
Ouwld RAWLIANA
John Goddard sculp
Domina Virginia Farrer Collegit. Are sold by J. Stephenson at ÿ Sunn below Ludgate. 1651.


MER DV NORT GLACIALLE
C Worsnam
C.Harles
NOVVELLE FRANCE
Lac des Bisserenis
Sault
La Nation des Puans
Isle ou il y a vne mine de cuiure
Lieu ou les sauuages font secherie de framboise et bluet tous les ans
Chosses desarchus
Algommequins
Petite nation des Algommequins
Les trois riuieres
Grand lac
Mer douce
Descouvertures de ce grand lac, et de toutes ses terres depuis le soult S. Louis par le sr de Champlain, es années 1614. et 1615. iusques en lan 1618
Lieu ou il y a force cerfs
Hurons
Cheueux releuez
Gens de petun
Lac St Louis
Grande riuiere qui vient du midy
Les gens de feu
La nation neutre
Antouoronons
Hiroquois
Sain tonga
Lac de Champlain
Nation ou il y a quantité de bestes
Carantouans
Habitation de sauuages manigenoticomont
Virginia
Isle de l'Ascension
Baye de nostre Dame
Riuiere de Champlain
Port fortune
Malle barre
Baye blanche
Port St Louis
Beau port
Cap des Isles
Port aux Isles
C Charles
C Henry
Carte de la nouuelle france, augmentee depuis la derniere, seruant a la nauigation faicte en son vray Meridien, par le sr de Champlain Capitaine pour le Roy en la Marine, lequel depuis lan 1603 iusques en l'année 1629 a descouuert plusieurs costes terres, lacs, riuieres, et Nations de sauuages, par cy deuant incognues, comme il se voit en ses relations qu'il a faict Imprimer en 1632. ou il se voit cette marque ⚐ ce sont habitations qu'ont faict les françois.

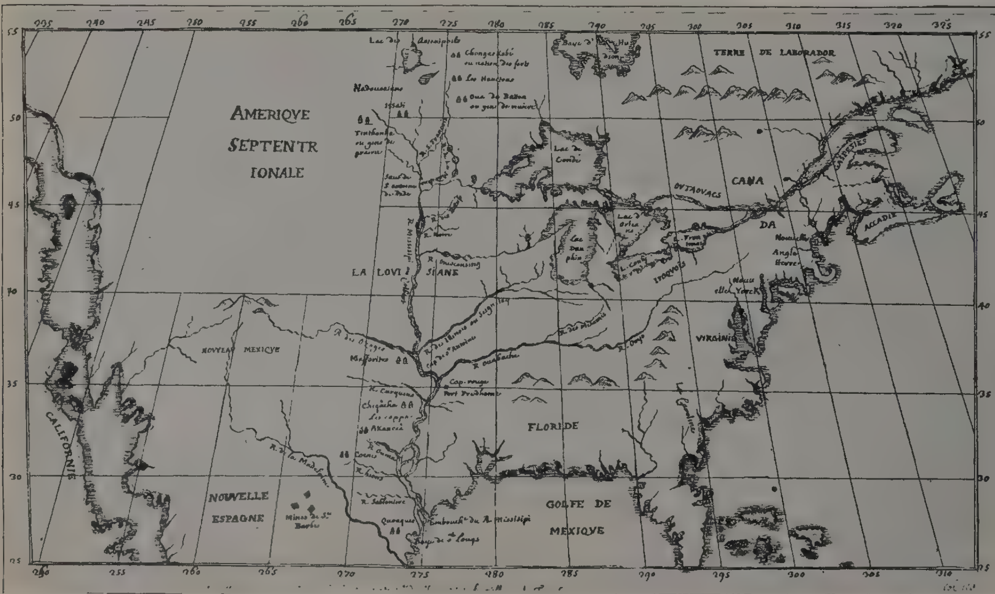
(Fig. 7) Champlain's last map of New France, published in 1632, sums up his exploration of the St Lawrence basin and of the routes leading out of it, from 1603 to 1629. To the south of the river, he had surveyed the maritime region of Acadia (Nova Scotia and New Brunswick), and had discovered the route leading from Quebec and Montreal, through the Iroquois country, by Lake—

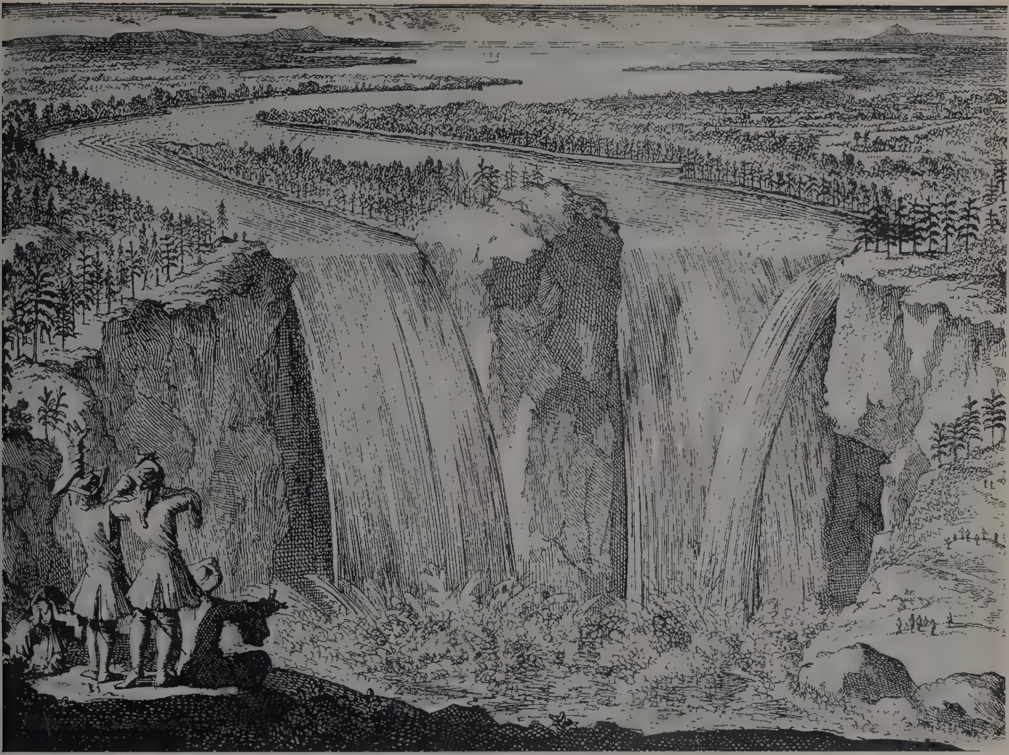


—*Champlain to the Hudson valley. Northward, he travelled up the Saguenay and St Maurice having learnt from Indians that it was possible to reach Hudson Bay by these rivers. Of the Great Lakes, Champlain had navigated on Lake Ontario and Lake Huron ("Mer douce"), and heard of Lake Michigan (here wrongly laid down to the north of Lake Huron) and of Lake Superior ("Grand lac")*



(*Fig. 8:* above) *Louis Joliet's map of his discoveries, showing the route by which he and Marquette in 1672-3 travelled from Lake Michigan ("Lac des Ilinois") over the Fox-Wisconsin portage to reach the Mississippi ("Riuiere Colbert"), from which they hoped to find a river leading to the west. The Ohio, with a legend affirming it to have been descended by La Salle on his journey from Lake Erie to the Mississippi, is probably a later addition.* (*Fig. 9:* below) *A map of North America, displaying La Salle's exploration of the Mississippi from the Illinois River to the Gulf of Mexico, 1681-7*



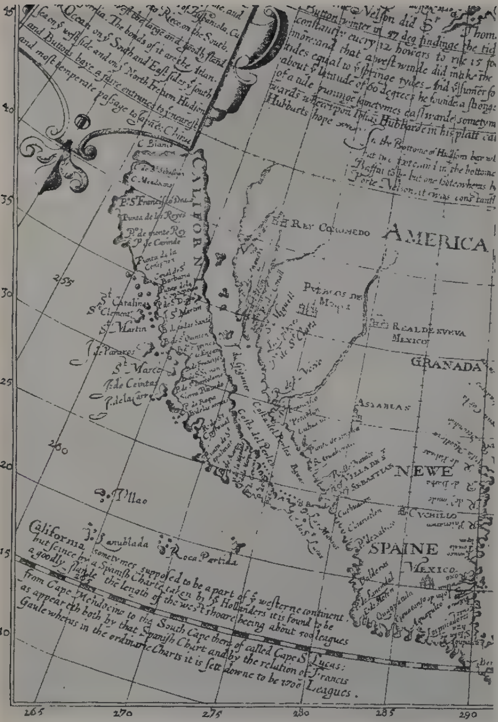


(*Fig. 10*) *On the Niagara River, in 1678-9, La Salle, accompanied by Fr Louis Hennepin, built a ship for navigation of the Great Lakes. Hennepin's narrative of the expedition contains the earliest picture of the Falls, which he described as "a vast and prodigious Cadence of Water"*

ended in his murder in 1687. These great journeys, which revealed the immense prairies of the Mississippi basin and traced the river to the sea, removed all hope that it might lead to California and the Pacific, and made the French aware that the vast territory to the west of the Appalachians was pierced by no waterway flowing into the South Sea. The journeys of Marquette and Joliet left a generous cartographic record, for Joliet was an expert surveyor who later became royal hydrographer at Quebec (Fig. 8). The imperfect mapping of La Salle's explorations has however left the routes of his earlier journeys uncertain, and thrown doubt on his discovery of the Ohio and on the question whether he or Joliet can claim that of the Mississippi.

On the other side of the continent, the Spanish missionaries from northern Mexico had clarified the geography of California and the Colorado valley. Correctly mapped as a peninsula in the 16th century, California came to be laid down as an island soon after 1600: "sometymes", as Henry Briggs wrote on his map (Fig. 11), "supposed to be a part of y^{e} westerne continent but scince by a Spanish Charte . . . it is founde to be a goodly Ilande." At the end of the 17th century Dampier wrote that the Spanish "Drafts do not agree about it. Some of them do make California an Island . . . Some . . . newly made do make California to join the Main." The journeys of the Jesuit Fr Kino in the years 1694 to 1702 established the peninsular form of California (Fig. 12); and missionary journeys later in the century reached from Santa Fé as far north as Utah.

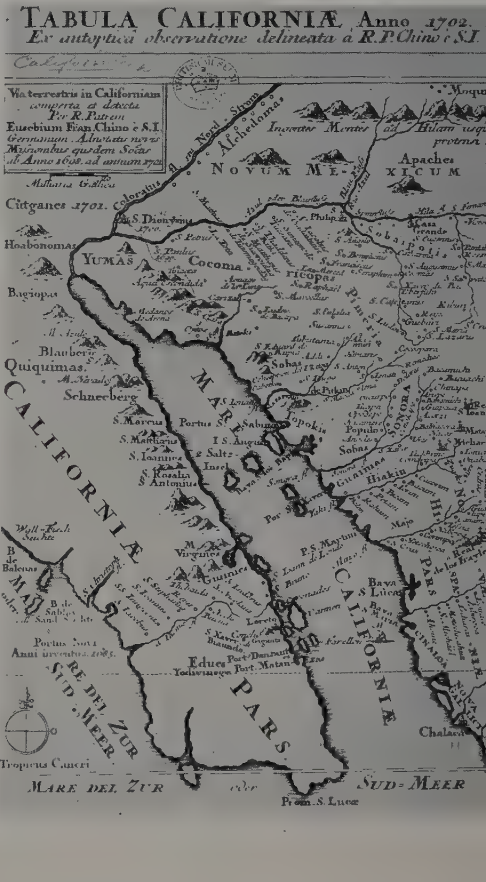
Between the Great Lakes and Hudson Bay, and to the north of the French trading posts, lay a region rich in furs and still unexplored when the French were already on the Ohio and the Mississippi. "We have long known", ran a Jesuit report from Quebec in 1661,

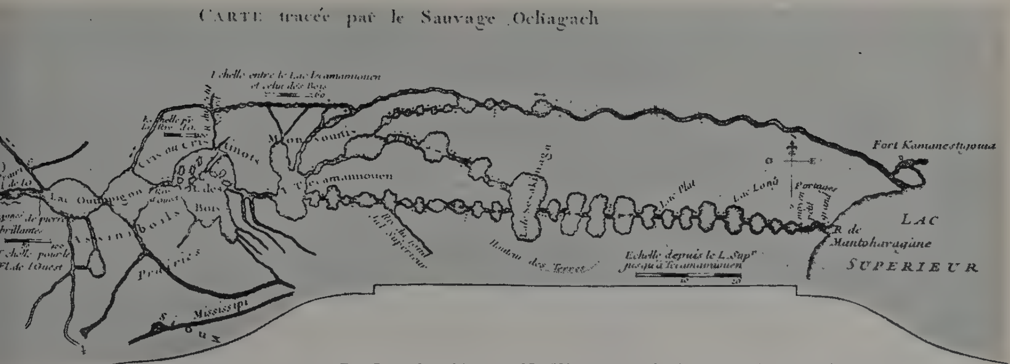

CALIFORNIA
AMERICA
REAL DE NUEVA MEXICO
GRANADA
NEWE
SPAINE
MEXICO
California sometymes supposed to be a part of ẏ westerne continent but since by a Spanish Charte taken by ẏ Hollanders it is found to be a goodly Ilande the length of the west shoare beeing about 500 leagues from Cape Mendocino to the South Cape thereof called Cape S^t Lucas: as appeareth both by that Spanish Chart and by the relation of Francis Gaule whereas in the ordinarie Charts it is sett downe to be 1700 Leagues.
265
270
275
280
285
290
45
40
35
30
25
20
15
10

(*Fig. 11*) *Henry Briggs's map of North America (1625) illustrates the erroneous belief that Lower California was an island, derived from a report that Vizcaino's expedition of 1602 had sailed north out of the Gulf into the Pacific*

"that in our rear we have the Northern Sea, that it is adjacent to the Sea of China, and that only the gateway has to be found. There is that famous bay, discovered by Hudson." In 1659 two *coureurs de bois*, Radisson and Chouart des Groseillers, after adventurous wanderings on the upper Mississippi in the course of which they had heard of the Missouri River, found themselves at the west end of Lake Superior. Here Indians brought in rich supplies of furs from the northern region still untapped by French traders. "We weare Cesars, being nobody to contradict us," wrote Radisson. In the winter Radisson and his companion "went away with all hast possible to arrive the sooner att the great river. We came to the seaside, where we finde an old howse all demollished and battered with boullets." The Indians told them "particularities of the Europians. We know ourselves, and what Europ is, therefore in vaine they tell us as for that." These details suggest that Radisson reached James Bay, where Hudson had wintered in 1610 and Captain Thomas James in 1631. Radisson and Groseillers entered English service in 1665, and in 1669 an English ship with Groseillers on board brought back to London a cargo of furs from James Bay. In the following year the "Governor and Company of Adventurers of England trading into Hudson's Bay" received a royal charter "for the Discovery of a new Passage into the South Sea and for the finding some trade for Furs, Minerals, and

(*Fig. 12*) *Map of California, from the journeys of Fr E. F. Kino (or Kühn), 1697-1701. From the Jesuit missions in Sonora, on the mainland, Kino travelled north to the Fila River ("Azul oder Blaufluss") and the mouth of the Colorado. These journeys satisfied him that California was a peninsula connected to the continent*

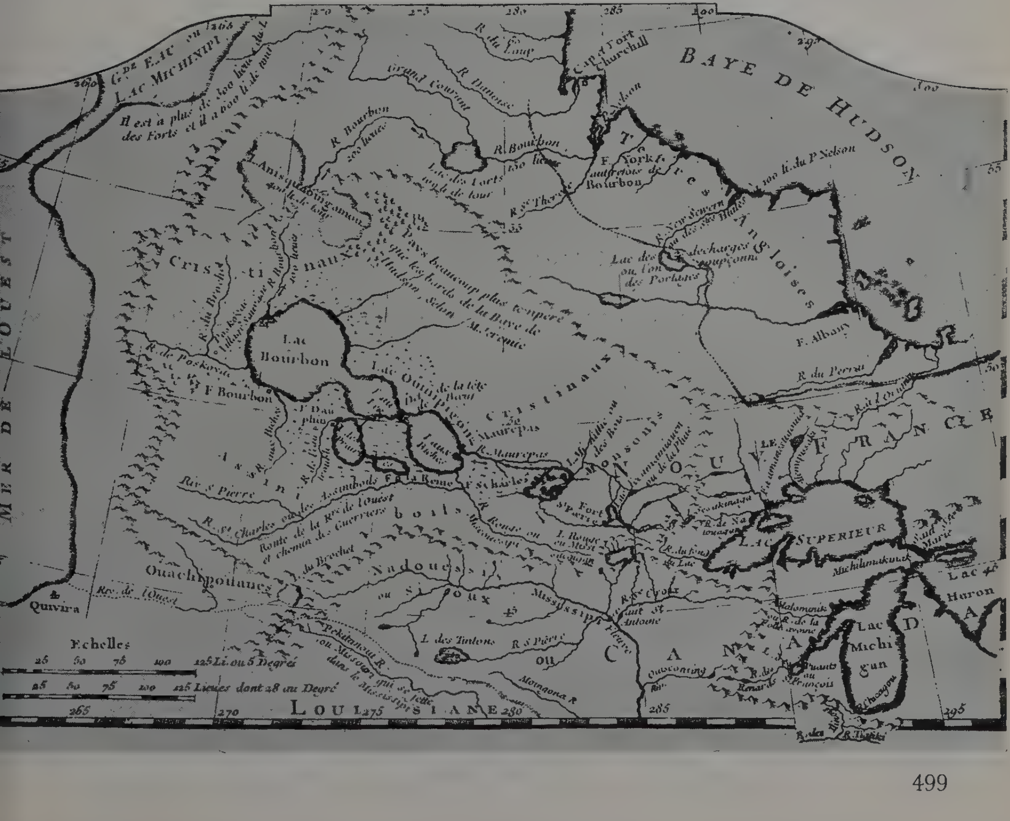

TABULA CALIFORNIÆ Anno 1702.
Ex autoptica observatione delineata à R.P.Chino è S.I.
Via terrestris in Californiam comperta et detecta Per R.Patrem Eusebium Fran.Chino è S.I. Germanum. Adnotatis novis Missionibus quædem Sociis ab Anno 1698. ad annum 1701.
NOVUM MEXICUM
Apaches
YUMAS
Cocoma
CALIFORNIÆ
MARE
CALIFORNIÆ PARS
MARE DEL ZUR
SUD-MEER
Tropicus Cancri
MARE DEL ZUR oder SUD-MEER
Prom. S. Lucæ



From Journals and Letters of La Vérendrye and his Sons, *by L. J. Burpee (The Champlain Society, Toronto)*

(*Fig. 13:* above) *The map drawn by the Indian Ochagach for La Vérendrye in 1728, depicting the chain of lakes and rivers between Lake Superior and Lake Winnipeg. Flowing westward out of Lake Winnipeg is the "river of the west", i.e. the Saskatchewan, which (as La Vérendrye and his supporters conjectured) "must discharge above California".* (*Fig. 14:* below) *Buache's map of the country explored by the Sieur de la Vérendrye and his sons, 1731-49, places the "Mer de l'Ouest" 120 leagues west of Lake Winnipeg, which the La Vérendryes reached on their earlier journeys. Later they travelled south-west through the Sioux country in the valley of the upper Missouri River as far as the foothills of the Rocky Mountains*

From Journals and Letters of La Vérendrye and his Sons, *by L. J. Burpee (The Champlain Society, Toronto)*

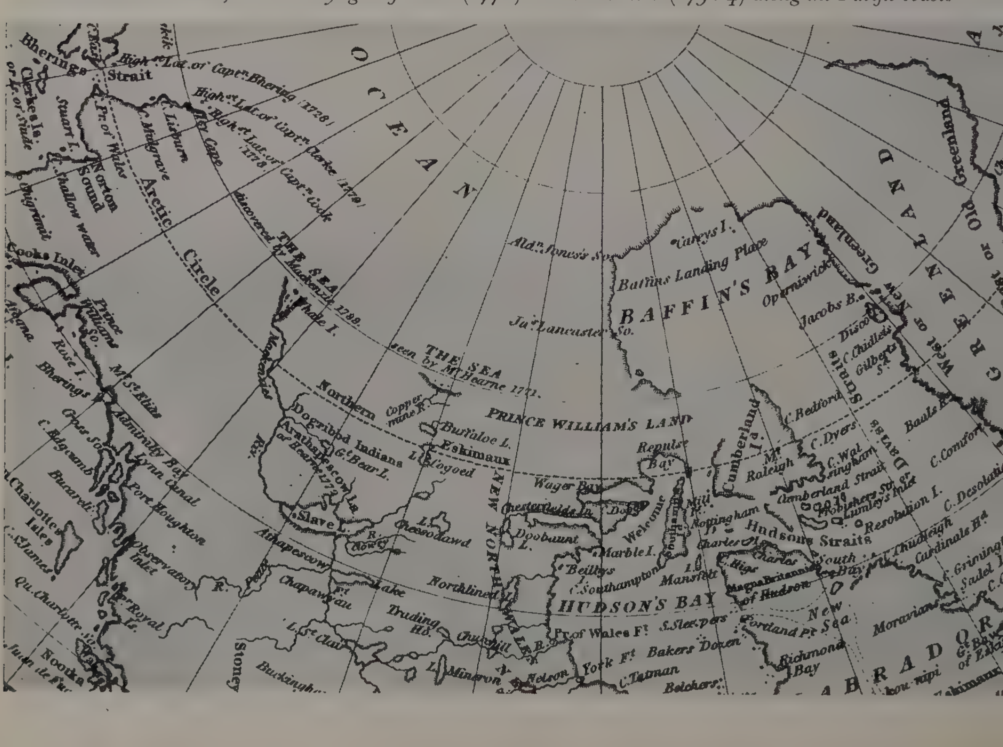


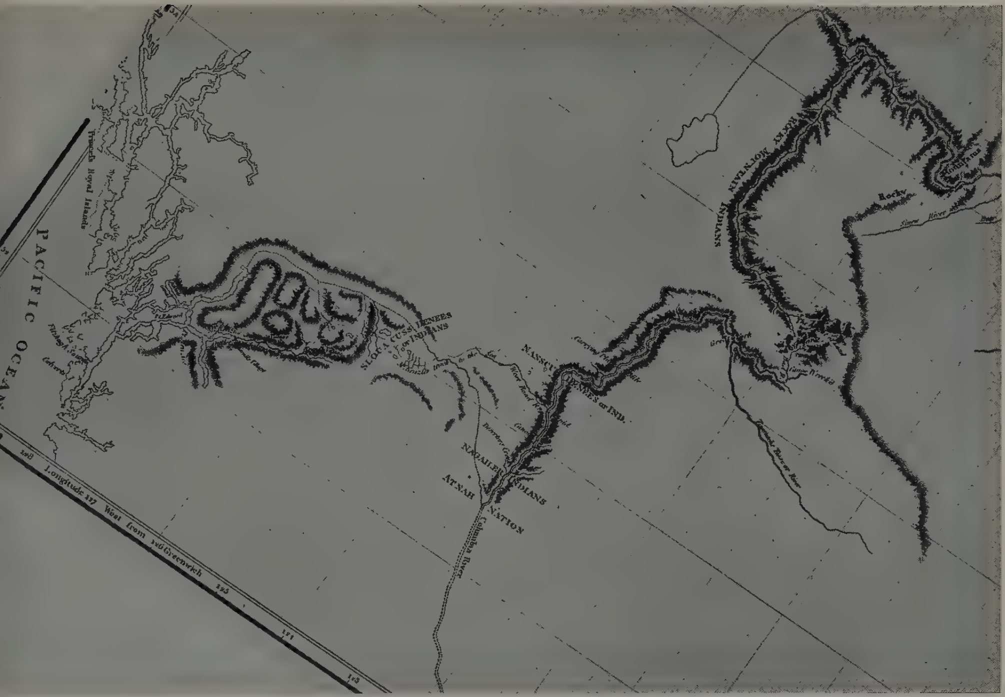
other . . . Commodities."

The French response, designed to curb the trading activity of the posts set up on the Bay by the English company, led to the discovery of Lake Winnipeg and Lake of the Woods and to the remarkable expeditions of the Sieur de la Vérendrye and his sons "to discover the Western Sea". In 1728 La Vérendrye had been told by an Indian named Ochagach that from a lake beyond Lake Superior a river flowed westward into a salt tidal sea; and the map drawn by Ochagach (Fig. 13) showed the water route to Lake Winnipeg and the river which "must discharge above California". The journeys made by La Vérendrye or his sons between 1731 and 1749 extended from Lake Winnipeg to the Missouri River (first believed to flow south-west) and as far west as the Rocky Mountains—"the great mountains which are near the sea". The "Mer de l'Ouest", sought by La Vérendrye and drawn on Buache's map of his explorations (Fig. 14), was a curious feature derived, in the 17th century, from Indian tales of a sea "ten days' journey westward" from Lake Superior. Geographers of the 18th century adopted it as a device for reconciling the evidently great width of the continent with incessant Indian reports of sea not far to the west of the French posts; it was generally laid down on their maps as communicating with the Pacific Ocean in about 45° N, and sometimes identified with the imaginary Strait of Juan de Fuca.

Like other "proud and privileged corporations," the Hudson's Bay Company showed less interest in exploration than in trade. The 18th-century searches for a waterway to the west from Hudson Bay (described in an earlier article) were not made under the flag of the Company, which was sharply attacked "as being averse from discoveries, and from enlarging their trade". Competition from two quarters roused it from its sloth. On the Pacific coast, there were the Russians who obtained in Alaska the valuable pelts of the sea-otter, seal, and blue fox; Cook's crews, returning from the North Pacific in 1780, told stories of skins bought for sixpence and sold in China for 100 dollars, and a keen trade in furs from the north-west coast, by American and English ships, quickly developed. Nearer

(Fig. 15) The myth of a water-passage across Canada from the Pacific to Hudson Bay was exploded by the explorations recorded in this map: the journeys of Hearne (1771) and Mackenzie (1789) overland to the Arctic, and the voyages of Cook (1778) and Vancouver (1792-4) along the Pacific coasts





(*Fig. 16*) *Part of Alexander Mackenzie's map of his transcontinental journey in 1793, showing his ascent of the Peace River through the Rockies, his portage over the divide ("McKenzie's route to the sea") and his descent of the Bella Coola River to the coast.* (*North-west is at the top*)

to Canada, the rival North-West Company, based on Montreal, was reaching ever further afield to cut off supplies of furs from the older company's posts on the Bay. In 1770 Samuel Hearne, a factor of the Hudson's Bay Company, set out from Fort Prince of Wales, on the Churchill River, with orders to seek a coppermine to the north-west and "to find out . . . whether there is a passage through this continent . . . out of Hudson's Bay into the Western Ocean, as hath lately been represented." Travelling down the Coppermine River, Hearne reached its mouth on the Arctic Ocean in July 1771 and thus (as he commented) "put a final end to all disputes concerning a Northwest Passage through Hudson's Bay" (Fig. 15).

Of the North-West Company's traders the most energetic in exploration and in map-making was Peter Pond. Pond moved north to Lake Athabaska in 1778 and to the Great Slave Lake, which he reached in 1787. The river which flowed out of the Great Slave Lake to the west was conjectured by him "to fall into Cook's River", in Alaska, discovered by Cook in 1778 but not explored to its head. Pond's theory was tested and disproved by the journey made by Alexander Mackenzie in 1789 down the Mackenzie River from the Great Slave Lake to the Arctic Ocean, 3000 miles by canoe in 102 days (Fig. 15). Hearne and Mackenzie had thus traversed the territory across which the "invisible because imaginary" straits from the Pacific to Hudson Bay were supposed to lie, and their western outlets were effectively removed from the map by the coastal surveys of Cook in 1778 and Vancouver in 1792-4. In 1793 Mackenzie made his second great journey. Ascending the Peace River from Lake Athabaska, he crossed the Rockies and, by way of the Fraser River, reached the Pacific in 52° N (Fig. 16), six weeks after Vancouver had visited the same spot. This completed the first overland journey to the Pacific by a European, and here on a rock he "inscribed . . . this brief memorial: Alexander Mackenzie, from Canada, by land, the twenty-second of July, one thousand seven hundred and ninety-three".

The Oxford Road Problem

by ELIZABETH CHESTERTON, A.R.I.B.A., A.M.T.P.I.

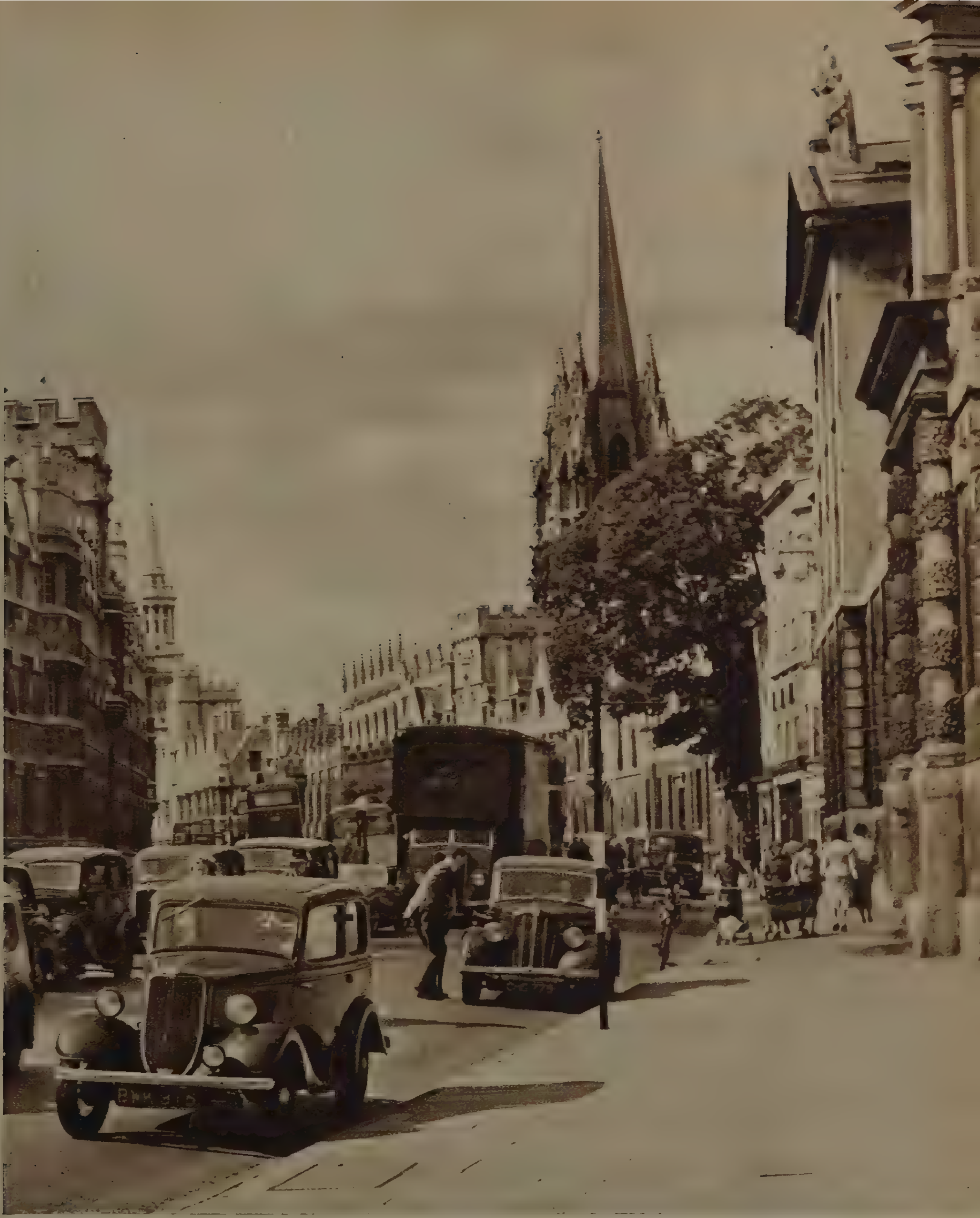
lan Cash

Several schemes for roads across Christ Church Meadow (above) have been proposed—and opposed.

In January 1955 we published an article on the problems of planning in Cambridge. The much more complex and vigorously disputed problems of planning in Oxford are at a crisis; they and their history are elucidated for us by Miss Chesterton, who is herself a town-planner and architect and worked with Sir William Holford and Professor Wright when the Cambridge plan was being developed

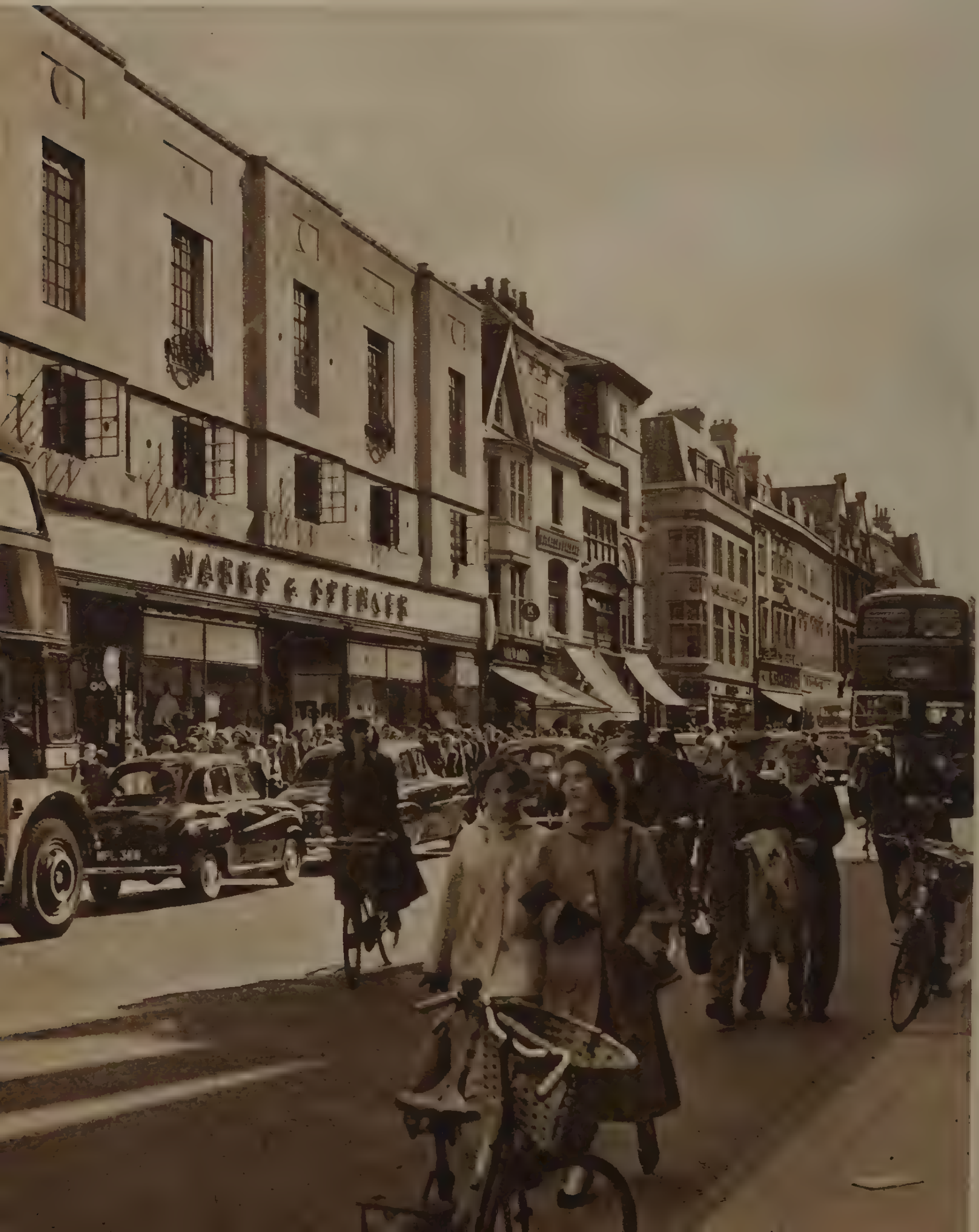
SETTLEMENT at Oxford began because a rise in the ground, protected by the rivers Cherwell and Isis, offered a good stronghold and a practicable crossing-place over the Thames. The road network of any country develops round such crossing-points and Oxford's position in the transport system of England and Wales became extremely important. Partly because of this, industry established itself there, and the town has doubled its population since the beginning of the century. At the last census the figure stood near 99,000, a population quite large enough to generate considerable domestic traffic difficulties.

Today, as a result, the two main thoroughfares in the town, the High Street coming in from the east over Magdalen Bridge and Cornmarket Street coming from the north to meet it at Carfax, have become desperately and continuously congested; smaller streets are taking diverted traffic for which they are entirely unsuited and cars are parked everywhere, disfiguring and obstructing the streets. Nor is there any reason to think that road-users of every sort will not continue to grow in numbers and make worse an already almost impossible situation. The rapid increase of vehicles licensed in Great Britain since the war brings this home; the percentage increases over the 1947 figures are now: cars 60, goods vehicles 54, motor bicycles 115. This being the case, it has become obvious that something must be done at



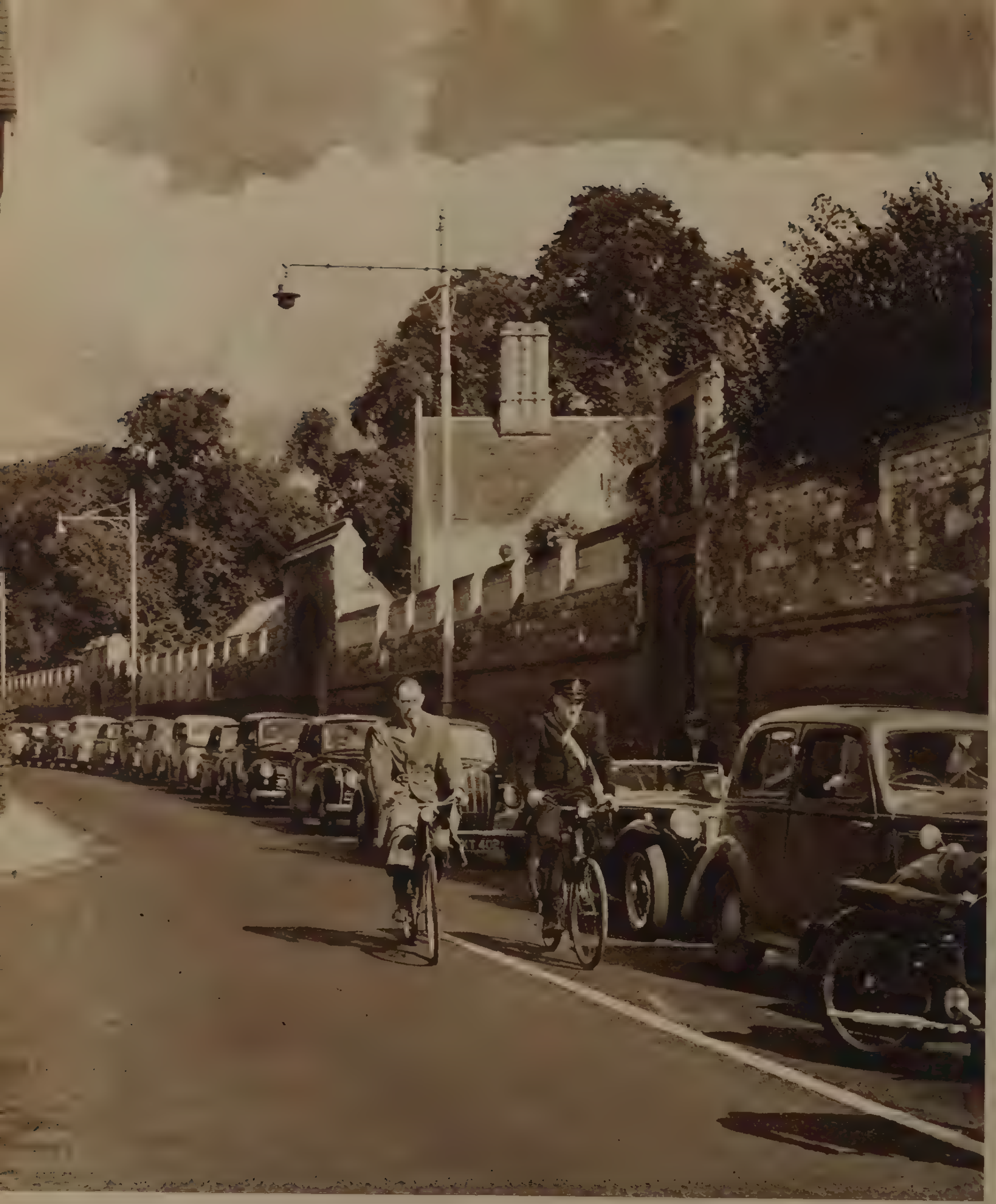
All photographs, except one, by J. Alla

The heart of Oxford is "the High". It is one of the most beautiful streets in the world, or would be if you could see it—see how the architecture of six centuries blends harmoniously on either side of its gentle curve. But you cannot now: buses, lorries, vans, motor-cars and bicycles crowd along it, jammed from pavement to pavement. This is part of the 20th century's contribution to the amenities of Oxford. This in essence is the reason why a road plan for Oxford has become essential

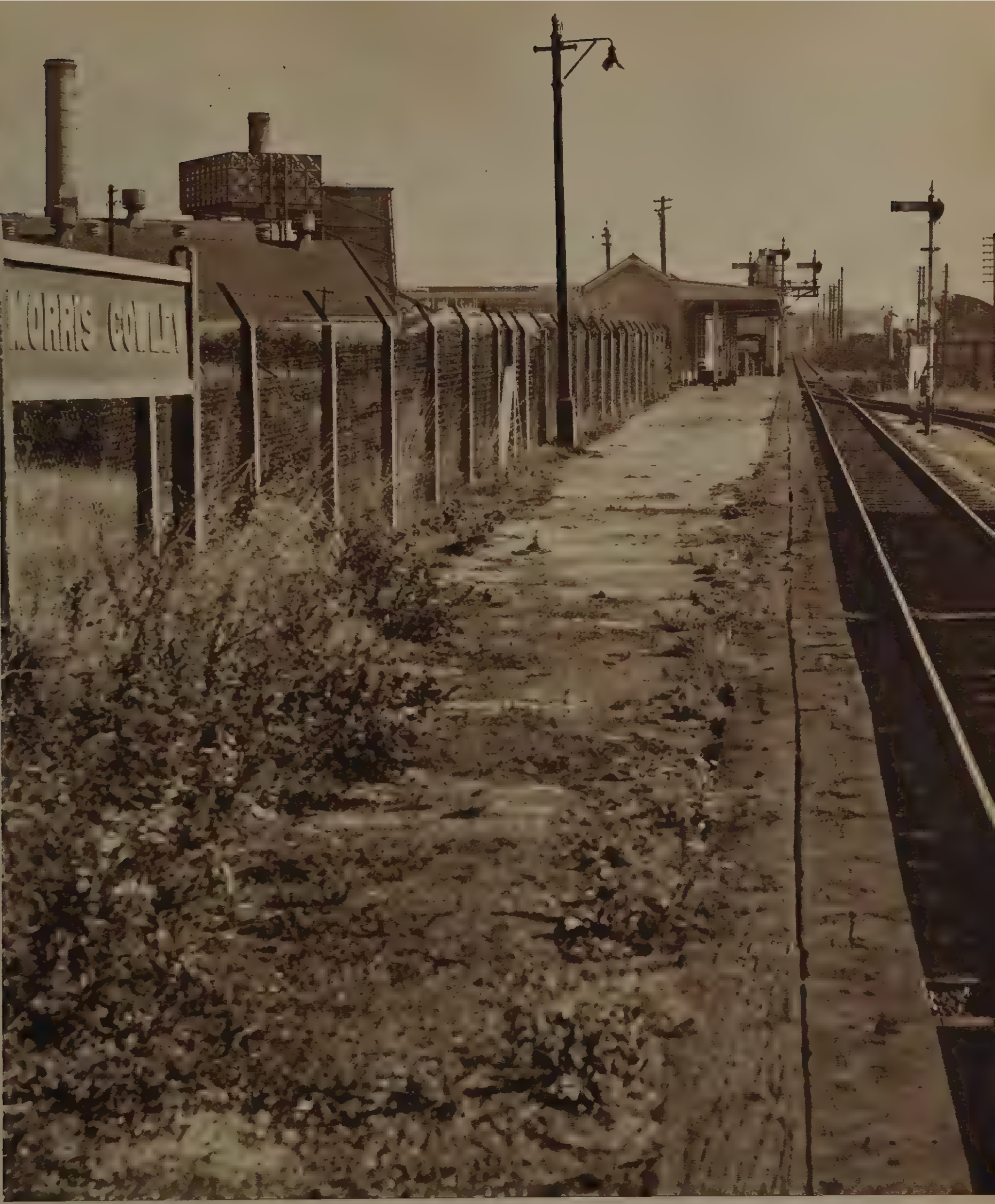


Oxford has grown outrageously—its population has doubled since 1900—but its main shopping centre, no larger than it was a hundred years ago, is crammed into a few hundred yards around Carfax, with most of the chief multiple stores in Cornmarket Street, at the same time a shoppers' promenade and the principal north-south route through the centre of England

Forty per cent of Oxford's shops are east of Magdalen Bridge, but they are for the most part small ones which lack the lure of the nationally known names; for these the shoppers of Cowley, Iffley and Headington must travel through the middle of the city to join the milling throng in Cornmarket Street



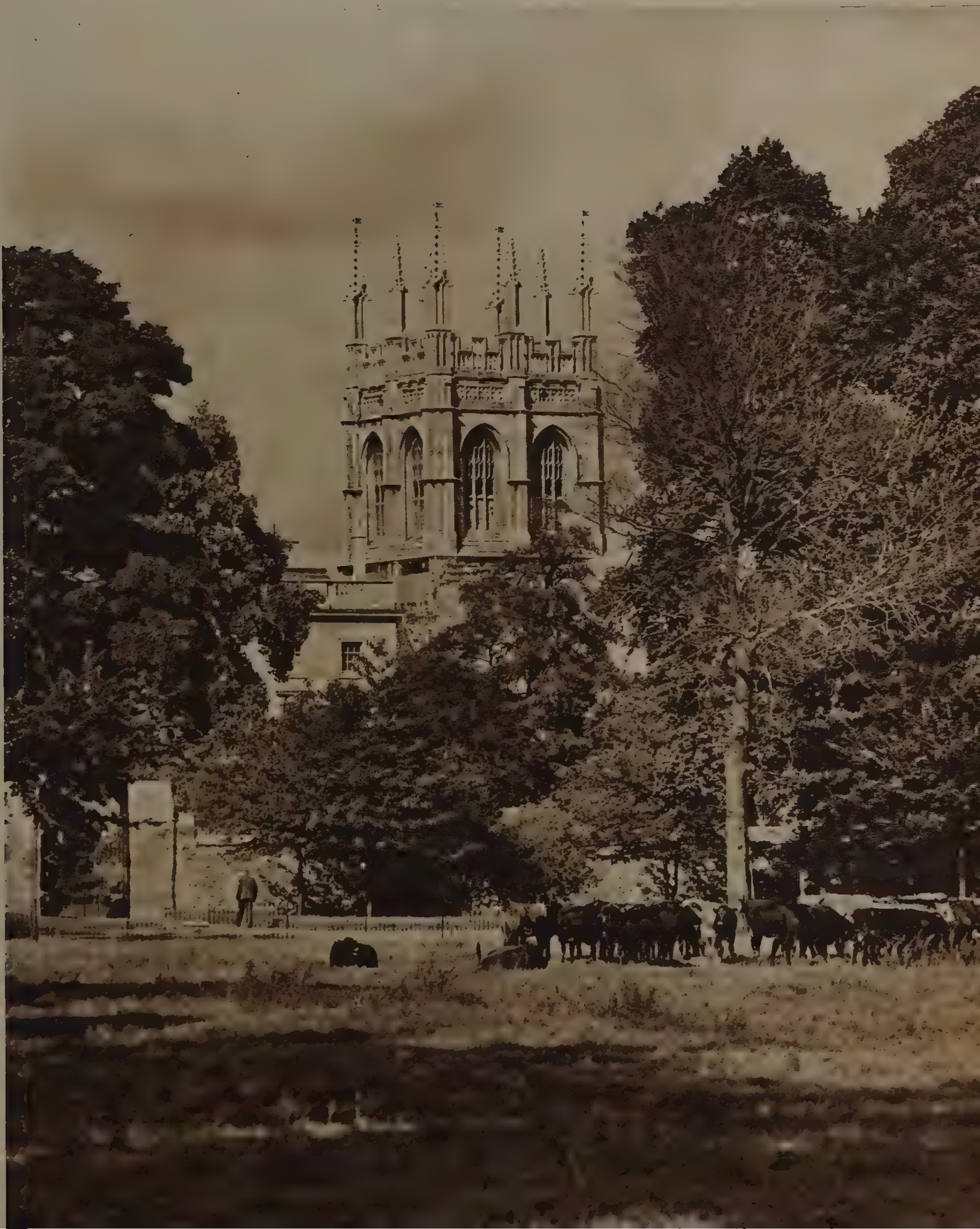
Longwall is used by many drivers travelling between North Oxford and the eastern part of the city to avoid the impossible conditions in Cornmarket and the High. But this narrow winding lane was never meant to be a by-pass and the cure is almost worse than the disease. In any case they must all cross Magdalen Bridge, for which at present there is no alternative



Cowley and Iffley are the Oxford suburbs that have grown the fastest. Exact figures are unobtainable but in twenty years they have increased by about 120 per cent and their population is probably over 15,000. This is the railway station that would serve them if there were any trains. There are none and Oxford station is three miles off at the other end of the city

Fifteen different schemes for relieving central Oxford of some of its traffic have already been proposed, and still they come. Each is bound to be objected to by those whose interests it threatens, whether it is the scientists whose delicate instruments will be disturbed if the relief road passes through the University Parks too close to the laboratory buildings—

—or the colleges: Christ Church, for example, if the suggested road cuts across its peaceful Meadow. There have been several variants of this particular suggestion, including one by the City Council's town-planning consultant. Is this rural scene to be shattered by an arterial road—or is some other equally cherished part of Oxford to be sacrificed instead?



ose

In the end a solution must be found. The traffic jams grow longer as the number of vehicles increases each year. Fifteen years have gone by and as many relief schemes have been proposed and knocked on the head. The latest is by no means the best—or the most absurd: it cuts a road from the bottom of Headington Hill, across riverside garden walks and two college cricket fields, South Parks Road, Museum Road, into the middle of St Giles, through the back door of the Lamb and Flag. And at the moment of writing somebody is busily trying to quash this scheme too

Oxford; the very substantial difficulty being not so much to find the right answer as to get for it enough objective support to carry it through.

Let us examine the problem in detail. The most important questions are: Where is the traffic coming from and going to that now passes through the centre of Oxford? Does it need to be there at all and, if not, where should it go? A northern by-pass already takes the London-Gloucester-South Wales traffic but, in spite of this, vehicles of all sorts still come through the city's narrow central streets in bulk comparable with some of London's busiest routes. A special traffic count in 1949 has shown that of all the vehicles then in the city centre, only 15 per cent had no need to be there at all, 60 per cent had need, and the remaining 25 per cent were travelling between different districts in the town without wishing to make a central stop. This means that even when, in the problematical future, a comprehensive by-pass system is completed, trouble in Oxford will not be substantially reduced. And in all probability any reduction achieved will by that time be entirely offset by the general increase in the use of the roads that seems bound to continue. So that, clearly, by-passes alone provide no answer.

It has been said that Oxford has the kind of functions that call traffic into being: it is a country town with a large dependent rural area, it is a university town, a tourist centre and the headquarters of the Nuffield organization and the Pressed Steel Company, and 85 per cent of its traffic is moving in, out and around on local business in which sight-seeing must be included.

The same kind of difficulties exist in varying degrees and forms in all our old cities; their central cross-roads are blocked, or at least made intolerable by the weight of traffic being carried upon them; their buildings, once well placed to play their part in a civilized urban way of life, have their front rooms made almost uninhabitable by noise, smell, vibration and dust; their streets are hazardous to cross and lined with parked or parking cars so that their architecture is lost to an increasingly unseeing public.

There is an urgent necessity for internal reorganization in Oxford. Many towns are facing or will have to face a similar problem and the longer it is left the more difficult this becomes as land is used up and money invested in rebuilding or new projects. Cambridge has faced it and after a considerable struggle now has a plan which includes central relief roads and special car-parking facilities, as was described by Max Lock in *The Geographical Magazine* for January 1955. Oxford is also taking action, but it is not yet clear what the outcome will be.

There are, in any town, interests that by their nature may well be in opposition to each other. The highway authority, the chamber of commerce, the trades council, the local preservation society and others, including the inarticulate man in the street. But in a university town the number of interested people is legion. Graduates who have not been near the city since their college days hold views, the Royal Fine Art Commission is involved, in fact the whole of the nation takes a hand. There are the Colleges themselves—twenty-eight in Oxford—as individual land-owning bodies, and the University, all keenly interested, forcefully articulate and extremely zealous for the good, as they see it, of their own particular organization. And this makes problems in such a city very much more widely discussed and slower of solution than is usual, as the history of the Oxford plan shows.

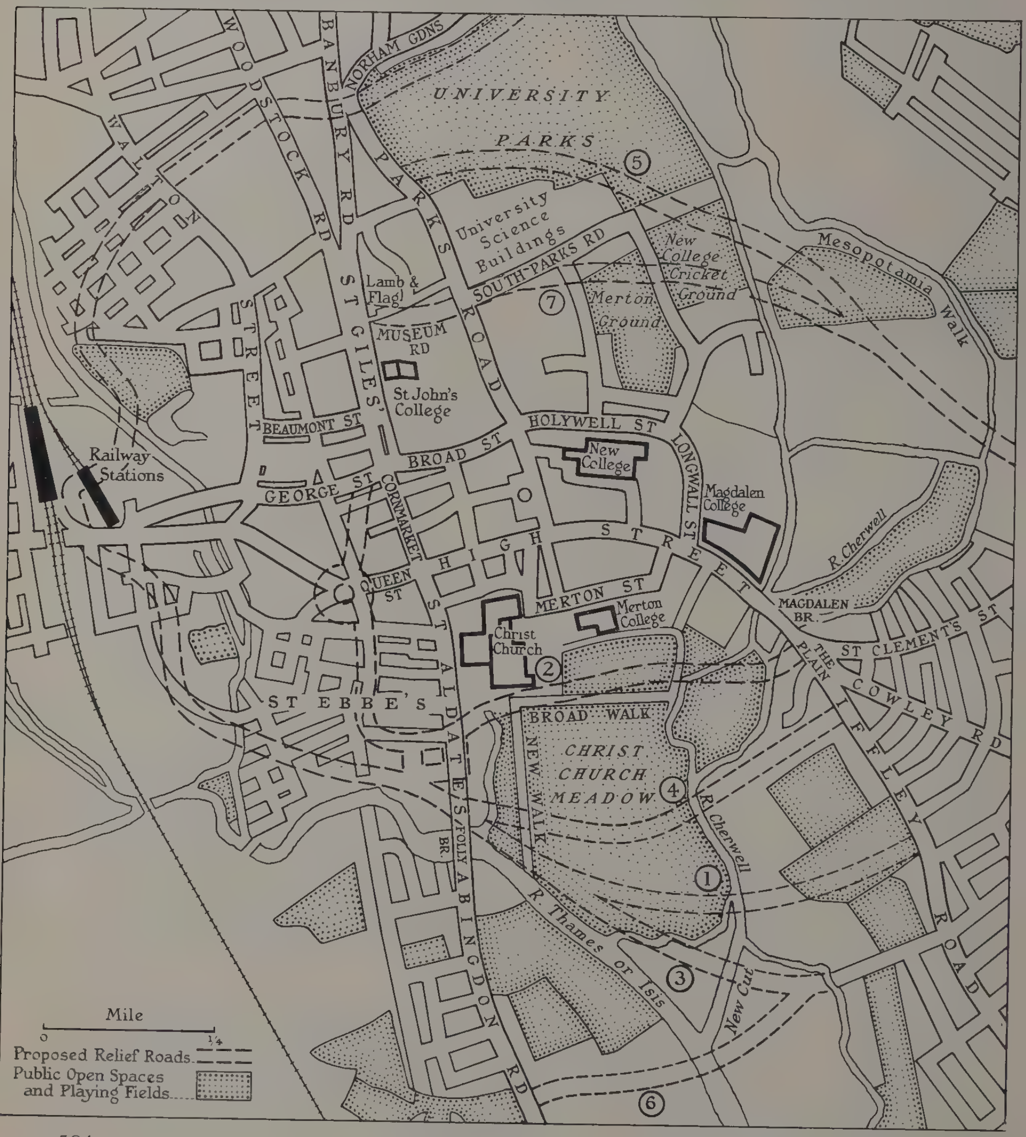
To understand the problem fully, something must be said about the topography of Oxford. The old and central sector contains the Colleges, all the important shops concentrated into a small area along the High and Cornmarket, and half the population. The town is bounded on the west by the railway where the station is, with the Isis beyond, and on the east by the Cherwell. The other half of the population lives in new suburbs at Cowley, Iffley and Headington, east of the Cherwell but still dependent on the old centre and obliged to reach it, and the station, by one route only, over Magdalen Bridge and along the High; those living in the centre but working east of the Cherwell must take the same route in reverse. There is at present no alternative route at all.

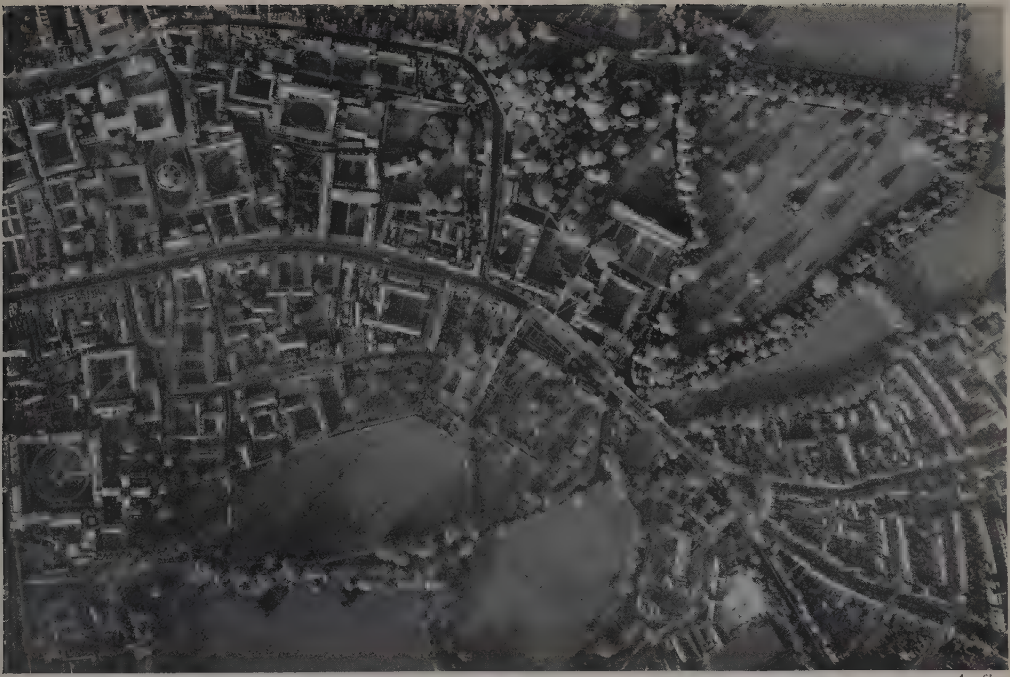
It is agreed that the situation can be slightly improved if a subsidiary shopping and entertainment centre is built at Cowley and this is to be done as soon as possible. But it is believed that new cross-town connections are also wanted, near enough to the centre of the city to relieve its local congestion, and the need for these routes and their actual siting is the outstanding issue in the Oxford plan today.

Until 1944 the idea of internal relief roads really close to the city centre had not been mooted publicly though various measures had been considered. The idea seems to have come first from Lawrence Dale, a local architect, who published a pamphlet in 1941 daring to make such a suggestion. It was to be a carefully designed and planted Christ Church Mall (1) running from a point on the Iffley Road south of Magdalen Bridge, skirting Christ Church Meadow near its southern boundary and joining St Aldate's Street just north of Folly Bridge; continuing through a redeveloped St Ebbe's to the station and to Queen Street. This proposal, which he published in book form in 1944 (*Towards a Plan for Oxford City*, Faber and Faber), got little

The numbers on this map, which correspond with those in the text, indicate Relief Roads. They are: (1) Mr Dale, 1941 (Christ Church Mall); (2) Dr Sharp, 1948 (Merton Mall); (3) City Planning Committee, 1955; (4) and (5) General Purposes Committee, 1955; (6) and (7) City Council, 1955

A. J. Thornton





Aerofilms

Central Oxford from the air: a photograph which clearly shows how Magdalen Bridge links the two parts of the city. At present all traffic between them must pass over it and along High Street

support, but one man wrote to its author: "If you go on at this rate you will share the fate of all revolutionaries. You will be excommunicated by the University and executed by the Ultra-preservers. About a century after you will be canonized by the citizens of Oxford and, when the Christ Church Mall is completed (about the year 2040) a bronze or brass statue to yourself will add very much to the amenities of the new road!"

About this time it became known that new planning legislation was coming, and in anticipation of this Dr Thomas Sharp, the town-planning consultant, was commissioned by the City Council to prepare a report. He began his work in 1945 and in 1948 it was published (*Oxford Replanned*, Architectural Press). It was comprehensive and dealt with many things besides roads, but again it was the road proposals that attracted attention. Dr Sharp argued that the need was for alternative routes designed to allow traffic to move easily wherever it wished in the town, but independently of the old centre where it would only go on imperative business, Magdalen Bridge being prohibited to heavy traffic or even, as he now suggests, closed. To serve its purpose the road avoiding this bridge had to be as central as possible and he proposed a route starting as "Merton Mall" (2) from The Plain, running alongside the Broad Walk to St Aldate's, turning north through St Ebbe's (with a link to the station) and joining Cornmarket opposite Broad Street. This route, he contended, would be direct enough to attract traffic and its western sections would provide frontage for an increased shopping centre where there would also be car parks.

He was well aware that there would be lively opposition; indeed he says so in the prefatory note to his report. And there was opposition—loudly voiced and from every point of view. The fact that a northern link which affected the University Parks was proposed between Marston, Headington and the north part of old Oxford made it even more vigorous.

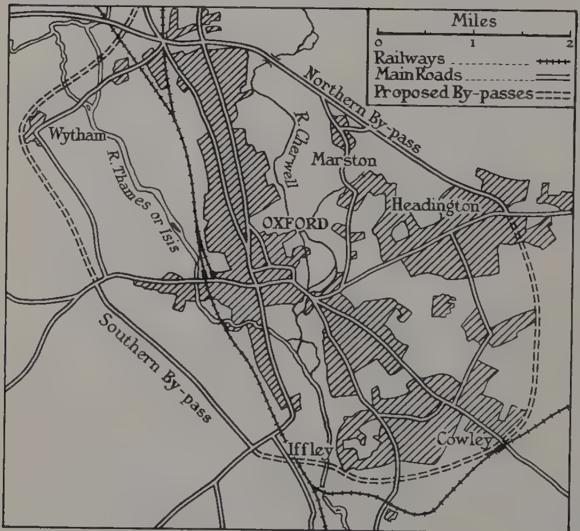
Following the Town and Country Planning Act 1947, it was now the uncomfortable duty of the City Council to prepare an official plan. The reactions to their consultant's suggestions must have made them fully aware, if they were not so already, of the difficult nature of their task, and their desire to maintain a reasonable working relationship with the University and Colleges must have made any positive solution to the problem seem almost completely out of reach.

Judging from the press reports that appeared, it was a stormy time for the city: wise counsels, hot prejudice, sentiment, informed and uninformed opinion, all vociferous. The Vice-Chancellor of the University, A. H. Smith, Warden of New College, said of what he called the intolerable position: "I hope that members of the University, in their desire to avoid controversy will neither shut their eyes to the facts of the present situation nor persuade themselves that it is best to defer all action which can possibly displease anyone." But the University and Colleges were divided in their views, no doubt influenced in varying degrees by the way in which any particular road proposal might affect them, and the City Council finally rejected any form of relief route for the High, trusting to one-way streets, unilateral parking and an agreed system of control of delivery vans to ease the flow of traffic in the centre for the time being.

A formal plan was then made and in 1953, as the law provides, objections to it were heard. The Council explained its omission of inner relief roads as a deliberate avoidance of irreparable damage to the historic charm and ancient character of their city. There was not enough evidence, they said, to support any one of the proposals so far put forward and they were not prepared to see Christ Church Meadow "wantonly desecrated"—by-passes must be completed first, though inner relief roads might become necessary in the future.

This was the City's case, attacked by their late consultant who said that by this omission the last opportunity for the true preservation of the city was being flung away; a view in which he was supported by the Vice-Chancellor who, seeing the difficulty of ever reaching a solution through the established machinery, suggested that the Minister of Housing and Local Government might set up an informal panel to study Oxford's problems and that negotiations based on his advice might lead to something positive. Perhaps, had some such step been taken then, the issue might already have been settled, rather as it was in Cambridge where the County Council, in effect an outside body, was responsible by law for the planning of Cambridge Municipal Borough; unlike Oxford which, being a County Borough, has planning powers in its own right.

After the enquiry, time passed while the Minister examined the plan and considered the objections to it. The Vice-Chancellor, in an attempt to clarify the position, prepared a thoroughly realistic paper in which he put forward the aims that he felt should lie behind the town-planning of Oxford and once again stressed the vital need for a system of internal relief roads that, were it ever required, could provide for the free circulation of traffic without the use of Magdalen Bridge (*The Town Planning of Oxford*, Basil Blackwell). This he delivered to the British Association when it met at Oxford in 1954, but it was not until early in 1955 that anything positive happened.



A. J. Thornton

Then the Minister took a decisive step. He wrote to the City Council before he formally approved their plan, asking for their assurance that they would shortly be making road proposals for the centre of Oxford and leaving little doubt that, were nothing done, he would set up an independent commission. "This," he wrote, "is, of course, not primarily a traffic problem. It is the question of preserving a priceless heritage of culture and beauty. The appearance and unique atmosphere of this great University City, which is renowned and beloved the world over, are being much spoilt by the endless column of motor vehicles which choke its famous streets; not to mention the structural damage caused by vibration from the ceaseless flow of traffic past its ancient college walls."

The battle was on again; the City Planning Committee put forward a northern route (*cf.* 7) running from Headington Hill to St Giles's Street past St John's College, but this brought protests from the Oxford Preservation Trust and the College; it then suggested a route skirting Christ Church Meadow (3) but the Council, sitting in General Purposes Committee, provisionally approved another, bisecting the Meadow (4), together with a northern relief road (5) affecting the southern part of the University Parks.

Neither the University nor the Colleges felt able unanimously to support any proposal and letters were published revealing wide divergencies of opinion; in the words of the *Manchester Guardian*, there must have been almost as many University road proposals as dons with half-an-hour to spare. Members of the public too, suggested everything: tunnels, viaducts and sunken roads.

It was against this background that the Minister announced his intention of visiting Oxford, without prejudice to his statutory position as arbiter of the finally submitted plan, to study and discuss the issues. While he was there, the Minister considered more than a dozen possible routes and had sessions with the main interested bodies, ending with a meeting with City Council representatives. Perhaps the Minister gave some lead, and with this in mind it is interesting to see the plan that the City has now, after long and hot debate, resolved to put to him for his approval. It is a compromise—a southern relief route crossing the Isis south of the Meadow (6), and a northern one (7) very similar to the route past St John's that had previously been considered.

A new spate of objections has risen to counter these proposals. It is being said that the southern relief road is too far from the city centre to attract traffic—no driver wishing to go due east from St Ebbe's will willingly travel half a mile south before turning east—while in the north, St Giles' as it now is will be lost completely and the University will be cut by a heavily trafficked road; not to mention individual property interests.

In November Congregation—the deliberative assembly of the University—voted overwhelmingly against the construction of any inner relief road between Norham Gardens and the junction of the Isis and New Cut, before outer by-passes had been completed and their effect seen. Offered the choice of two evils, a northern or southern inner relief road, it then voted reluctantly for one through the Meadow. These with other objections will be heard when the Minister holds the public enquiry for which the Act of 1947 provides.

What will be the outcome? The political and emotional aspects of the thing seem to overshadow the technical considerations so much that these had slipped far into the background. After making his provocative and stimulating report in 1948, Dr Sharp has never again been consulted and it appears that the City, in reaching its final decision, has hardly considered the financial implications at all.

Had a road on the lines proposed by Dr Sharp been adopted, it is quite possible that no northern relief road would have been thought necessary—St Giles', the University Parks, several playing fields and Mesopotamia Walk (rival to the Christ Church Meadow walk) would have been left untouched. If a more southerly route than his is considered that cannot easily pick up London and Headington traffic or traffic in the Queen Street, George Street, Beaumont Street, St Giles' area, then, as the City says, a northern relief road to do this needs to be advocated as well.

There are reasons for and against both solutions.

Motor traffic has crept up on us almost with stealth, and suddenly we are confronted by a mounting problem the existence of which we are hardly yet willing to admit. The civilized life, for which many towns were built, will soon no longer be possible in them unless we do something positive about it. The imaginative and courageous reorganization of such towns as Oxford is essential if our entire heritage is not to be made worthless; an exhausting, frustrating, limiting and inefficient fabric, hampering our lives.

The Minister has an unenviable task at Oxford: to decide what in the long run is really in the best interest of the city as a whole. The next step in the drama, the Minister's public enquiry, is keenly awaited by everyone interested in Oxford and in planning.

Nigerian Contrasts

by IAN BRINKWORTH, M.B.E.

The State visit of Her Majesty the Queen and the Duke of Edinburgh to Nigeria, which is planned to take place early this month, is the first made by any reigning sovereign. To celebrate it we have asked the author to draw a portrait of that country as it is today. He brings the experience of ten years' service in Nigeria to the performance of what, as he shows, is a difficult task

Her Majesty the Queen is visiting Nigeria at a time when that large country—it is more than four times as large as Britain, with a population of 31,000,000—has reached a stage in its development when great decisions have to be taken about its future. These will be made this year at a conference whose most important task will be to decide on the timing of self-government and the form it will take. The task of the conference will be difficult, for Nigeria is a federation of three Regions, distinguished from each other by marked racial, social and economic differences.

To draw a portrait of so vast a territory, a complex of different peoples, living separate and formerly hostile lives in surroundings varying from harsh deserts to dense rainforests and forbidding swamps, requires something more than a recital of historical progress and statistical details. Such an account, while presenting a factually true image, would lack the colour and warmth required to do justice to the picture of this just-emerging state with its ardours and ignorances, aspirations and difficulties; and its diversity of peoples whose one common trait is the intensity with which they want progress towards the responsibilities of self-determination.

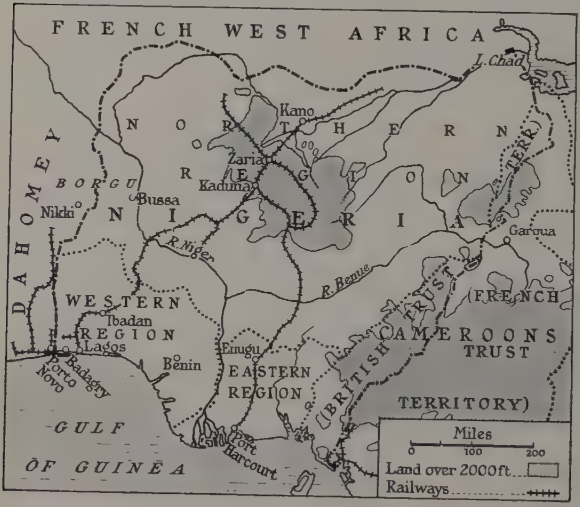
To give form to the picture something more is needed—a device, like 3D spectacles, lending roundness and relief to the image. I think this can be achieved by describing the Nigerian scene in terms of contrasts: contrasts that reveal themselves in different ways—by the record of events separated in time, by economic and social changes occurring at different speeds, by differences between indigenous and imported cultural ideals, by differences due to distance, historic development or language. Of all these contrasts I will give examples, in the hope that they may throw light on the fascinating complexity of Nigeria's problems as she approaches the decisions of 1956.

RIVALS AND FRIENDS

It is the year 1894 and relations between France and Britain are very strained as a result of rivalry on the western borders of Nigeria.

The previous year France had declared a protectorate over the territory of Dahomey, and was seeking to extend this protectorate eastwards by including the territory of Borgu, which the Royal Niger Company claimed by virtue of a treaty signed with the chief of Bussa. The French disputed the right of the chief of Bussa to sign such a treaty as he was, they said, subordinate to the chief of Nikki, a town in French territory, who alone, they claimed, had power to sign treaties on behalf of Borgu.

As a result of the dispute the French sent a Captain DeCoeur from France on July 24, 1894, to secure a treaty from the chief of Nikki and, four days

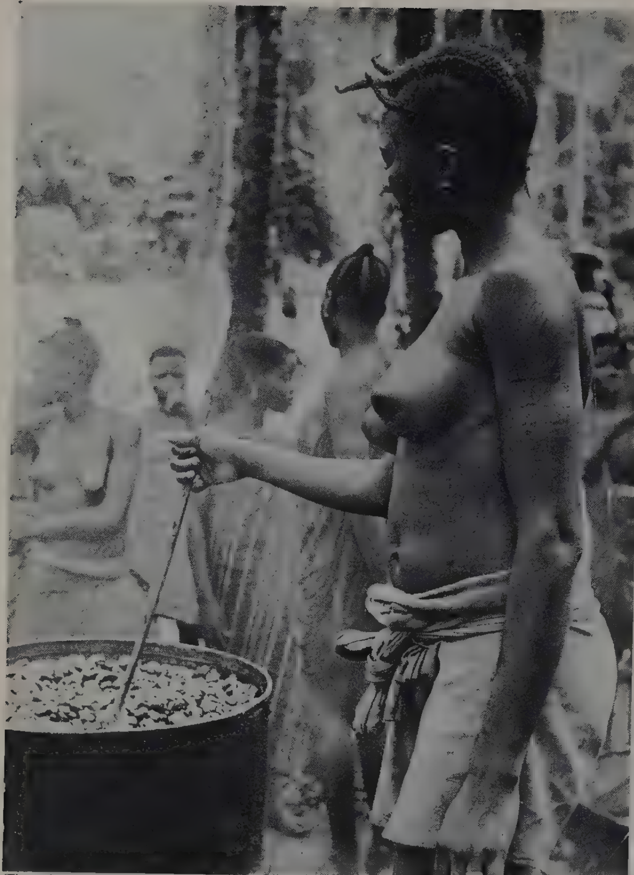


A. J. Thornton

The

Political rivalry between Britain and France in West Africa ceased long ago; both now represent inescapable world-wide influences, such as that of commerce. This is, indeed, welcome to Africans, whose custom is equally the target of (above) *Monoprix in Porto Novo and* (below) *Kingsway Stores in Lagos*

By courtesy of the United Africa C



The author

Palm-oil and palm-kernels to the value of about £36,000,000 were exported from Nigeria in 1954. Though increasing numbers of factories are being established production is still in the hands of small cultivators and women play an important role

later, Captain Lugard left England on behalf of the Royal Niger Company on a similar mission. The race was on!

Captain DeCoeur had the advantage of a slightly shorter sea voyage and land journey; Captain Lugard, who was to become the first Governor-General of Nigeria, that of familiarity with much of the country. Both had against them mercilessly difficult country, a climate inimical to Europeans, disease, thirst and unsettled populations. But in spite of all difficulties, spurred by rivalry, both captains swept their parties along and over all obstacles with equal resolution.

Captain Lugard with his escort of forty arrived first at Nikki, secured the treaty, and left again five days before Captain DeCoeur and his five hundred Senegalese arrived to find they had lost the race.

* * * * *

Sixty years later, in 1954, I was District Officer, Badagry Division in Western Nigeria, the most south-westerly of the Divisions on the frontier with Dahomey. Thirty miles away to the west, along the Porto Novo creek, lay Porto Novo, the capital of Dahomey, and forty miles to the east, Lagos, the capital of Nigeria.

It was the day before Christmas and there was to be another Franco-British race. Porto Novo yacht club had challenged Lagos yacht club to race them and Badagry had been decided on as the meeting-place.

Everything was ready: the rest-house had been cleaned and furbished as befitted an international occasion, its façade decorated with flags and its grounds criss-crossed with bunting. The refrigerators I had installed were making ice and were well stocked with beer; the turkeys were cooked. Most important of all, there was a magnificent stiff sailing-breeze riffling the surface of the creek.

Suddenly a white sail appeared in the distance followed by another and another. The French were coming! They came on swiftly, passed the landing-stage and swept on to salute the flag down-river. A graceful turn and they made for the landing-stage. The guard of honour presented. Handshakes.

Then someone said: "*Les voilà!*" Down-river against wind and current came the Lagos yacht-club boats in double file, gaily rigged and towed behind a fast tug.

That evening the rest-house was filled with the pop of champagne corks and a babel of French and English as the crews discussed the next day's racing.

On Christmas morning French and British sang the "Marseillaise" and then "God Save

The Queen"—and it was no formality.

TWO ECONOMIC LEVELS

In West and East Nigeria palm-oil is the most valuable element in the people's food and its production absorbs much of their agricultural effort.

After the palm-fruit is cut from the tree by the men the fruit is carried by head-load to clearings in the bush and heaped in piles. Here women take charge of it and begin the work of extracting the oil and collecting the kernels—by tradition the women's property.

The clearing is bare of all vegetation, except that sometimes a few saplings are left standing. Against the smooth-trampled dark earth the mounds of scarlet-and-gold fruit stand out in vivid contrast, a contrast heightened by the matt black of the soot-covered 44-gallon petrol drums in which they are boiled. From these drums clouds of steam rise and curtain the hurrying figures of the women as they busy themselves with the various processes of extraction. The steam, the dark earth, the leaping flames of the fires and the gleaming bodies of the women, sweat-soaked, give an infernal touch to the scene.

The author

Lord Chandos, when Colonial Secretary, talking to a 'career girl': one of many whom Nigeria's economic progress has enabled to gain a knowledge, assurance and poise that puts them on equal terms with African professional and business men

When the kernels have been thoroughly boiled they are emptied into troughs and the women, clinging to the standing saplings, trample the golden mess with their naked feet. At the end of the day the women fill the deep red-gold palm-oil into containers ready for sale in the market.

On their way home, before entering their village, the women stop to wash in a stream and then, refreshed, lift their loads, place their children on their backs and separate—each to her own palm-thatched mud-hut and the end of a day which began at sunrise.

* * * * *

Just past the race-course in Lagos stands the Nigerian Broadcasting Services building. Built recently, its white walls are relieved with plaques of bright colours and decorated with groups of figures modelled by a Nigerian artist. A tall steel mast, guyed in position by a tracery of steel wires, emphasizes the building's starkly contemporary architecture.

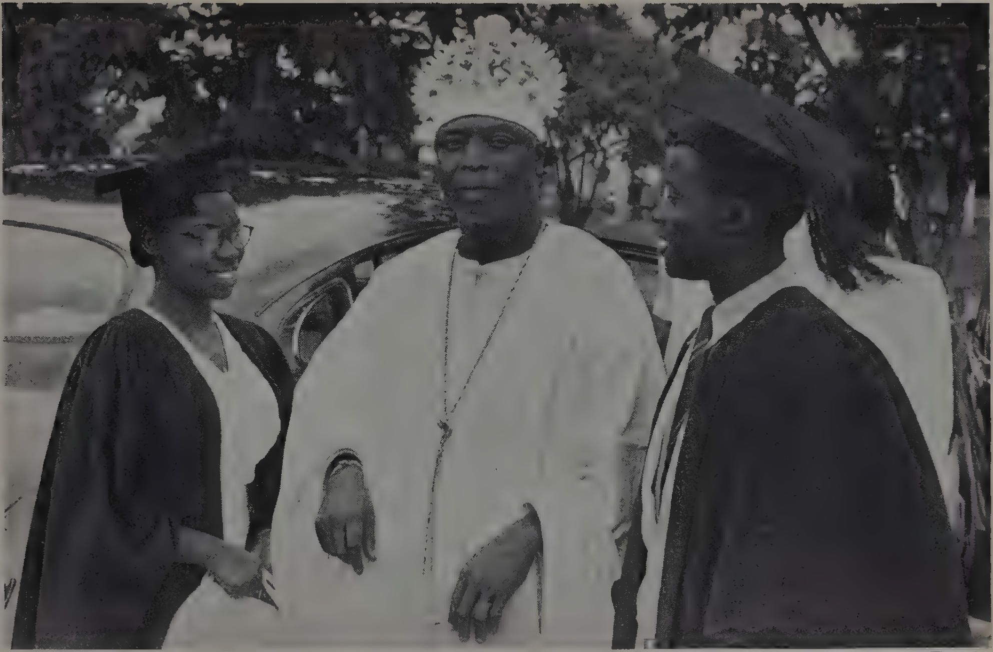
In the entrance hall, decorated with a fresco of African drummers and dancers in a romanticized version of early cubism, I was received by an African lady receptionist who asked me my name and business, talked into a receiver and then sent me on my way with a messenger to guide me.

In the office of the man I was calling on was a very good-looking, very *chic* African girl in European clothes. She was, I discovered, an announcer, interested in her job and with an ambition to go to England for

R. Lannoy, by courtesy of Fry, Drew and Partners

Educational apparatus in Nigeria, at the top level, is of the very best. The University of Ibadan has plenty of (above) *new buildings and* (below) *new equipment for scientific teaching, provided in large measure by the British taxpayer through grants from Colonial Development and Welfare funds*

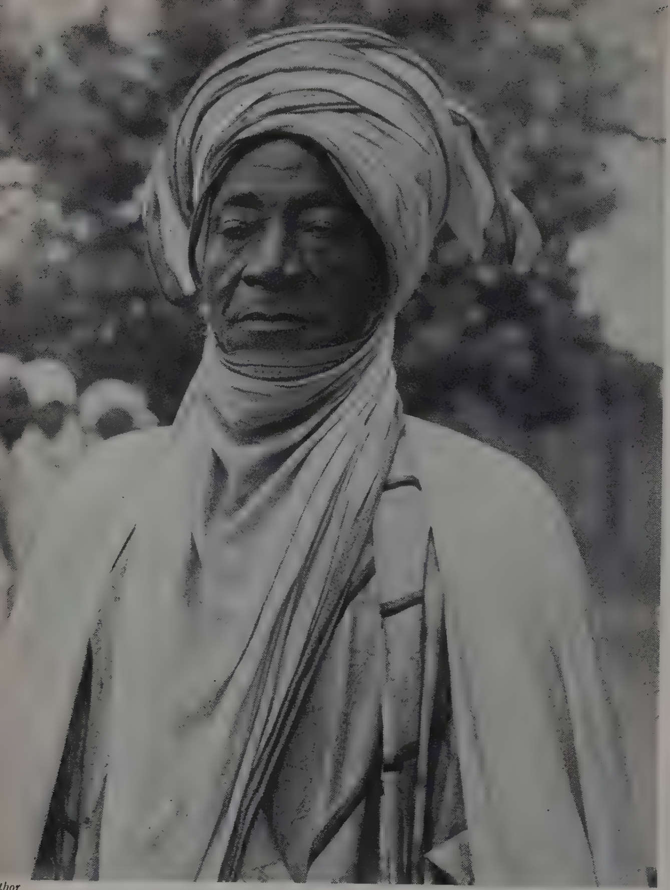
C.O.I., Crown copyright



The author

The aims of education are not always of similar quality: degrees are often sought and prized for the material advantages they can bring. (Above) *Academic attainment may confer distinctive robes, but not necessarily an education in manners and morals such as* (below) *the fetish schools still afford*

The author



thor

A Fulani Emir. In Northern Nigeria both settled Hausa and nomad Fulani have been Moslem for 600 years; the former were conquered by the latter early in the 19th century; both came under British rule early in the 20th; neither, till then, had any but hostile contact with the Negro peoples of the South

a course with the B.B.C.

"But," I said, "I see you are engaged. Surely marriage will stop your broadcasting activities?"

"Not at all," she replied, "I intend to keep my career"; glanced at the watch on her wrist, excused herself, and left me for the antiseptic quiet of a studio where I watched her, through the plate-glass partition, speaking into the microphone, poised, assured and confident.

EDUCATION NEW AND OLD

A cocktail party was being held in the hall of University College, Ibadan, Western Nigeria. Beneath the gaily painted, aggressively contemporary buildings, their walls pierced with biscuit-like patterns, an opulence of motor-cars testified to the importance of the occasion.

Inside the hall members of the staff, students and guests moved around, glasses in their hands, in a buzz of conversation. Apart from the preponderance of Africans it might have been a similar gathering anywhere except that social chatter was virtually absent, the conversation more intense: the same introductions and formal smiles; the same attentive young men filling glasses; the same edging towards important personalities as the press photographers flashed their guns at them.

"Yes, but the three-tier system . . ."

"Mr Obiah, have you met Miss Smithers? She's here on a fellowship from . . ."

"Yes, I reckoned about three months would just about give me all the material I want to fix the place of the mother in Egun society."

"Have you met the Minister of Agriculture? Let me introduce you."

"No, Mr Minister, I contend that the real cure for swollen shoot can only be . . ."

Against the hall's beautiful panelling in West African woods the conversation stirs and flows—always reaching out and worrying at the future of Nigeria and the part the African should play in the world, and the material benefits he will acquire from increasing use of Western methods.

* * * * *

I was cycling one afternoon in the bush when I heard drums beating with a rhythm unfamiliar to me. I headed for the sound and came to a clearing. Under a tree were a group of drummers and two rows of dancers. Behind each row of dancers were others, resting. Surrounding dancers and drummers in an attentive semicircle was a crowd of villagers. The only recognition of my presence came from the crowd. "*Ajele*," I heard.

"The D.O."

The late afternoon sun glowed on the dancers, dressed in red-and-white cowrie-shell helmets; cowrie-shell veils hung before their faces; and the same red and white cowries hung in bandoliers across their bare torsos, glistening with sweat. Both men and women, men on the left, women on the right, wore variegated coloured skirts and danced in the same trance-like way: towards each other, away from each other; quietly, absorbed, their eyes fixed on the ground; with tumultuous convulsions of loins and breasts, flying cowrie bandoliers jinketing together in flashes of quickly moving red and white; eyes upturned sightlessly, whitely.

The dancers were, I was told, on the point of graduating from the fetish school, where they had learned, besides dancing, the secret language of initiates and the tribe's traditions. The women had learned in addition how to bear children and how to please their husbands, mat-making and other crafts; the men the ways of tribal society and the proper conduct of a man.

"When," I asked the village head, "will a new class start? I should like," I told him, "to see the novices at the beginning of their training."

"I do not know," he replied. "Now not many come to the fetish schools. The people send their children to the government's schools to learn book to get fine jobs like clerk."

NORTH AND SOUTH

"*Zaki!*" they say in the North. "Lion!" and accompany the greeting by raising the bent right arm in the air, shaking it with the fist clenched as though holding a spear. The gesture is a warrior's, full of pride and dignity.

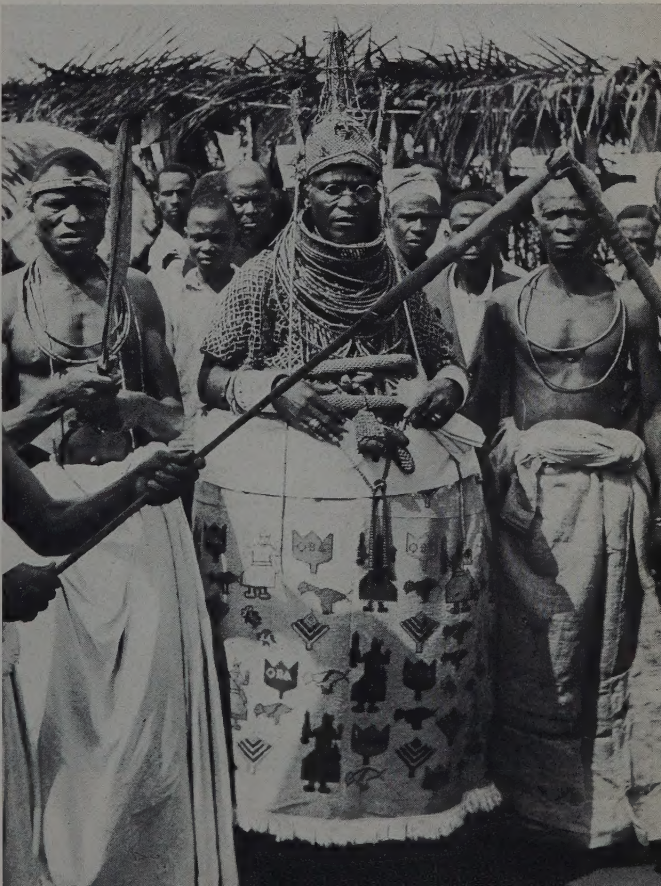
From Northern Nigeria, across the Sahara to the cities of North Africa, the trade-routes carried produce and slaves for centuries; and from the Mediterranean littoral flowed back some of its culture and the unifying disciplines of Islam.

The North is the land of the great Emirs. Descendants of Fulani conquerors, secular rulers and "Defenders of the Faith", they rule states governed by the tenets of Mohammed. Among these Moslem states there exist islands of pagan peoples who have successfully resisted the attacks of the Moslems wherever natural difficulties of terrain made this possible.

But it is the Moslems who give the North its flavour and it is to the Emirs that the mind turns when conjuring up a picture of the North: Emirs who, on ceremonial occasions, sally from their palaces surrounded by a caracole of horsemen elaborately accoutred, on horses richly caparisoned, crusading swords at their sides and chain-mail upon their bodies.

Arabic script, and the voice of the Imam shrill above the country calling the faithful

The Oba of Benin. "The Southern chiefs were semi-divine persons, their lives directed by an elaborate ritual of devotions and ceremony upon which . . . the very existence of their people depended." In a political environment modelled on British ideas and practice, their status tends steadily to diminish



The a

to prayer, link the North with the great cultural stream of the Islamic world and set the pattern of a life moulded by contact with Arab civilization and the astringent rigours of the desert.

* * * * *

The South of Nigeria remained isolated from the world until the Portuguese navigators established a sea-link with Europe in the 15th century. On the landward side natural features and the tsetse fly proved an effective barrier against the southward movement of Northern cavalry.

Within the forests and swamps of the South, states evolved in spite of conditions malignantly hostile to man, where, cut off from the rest of the world, they developed institutions difficult for Europeans to understand. The Southern chiefs were semi-divine persons, their lives directed by an elaborate ritual of devotions and ceremony upon which not only the prosperity but the very existence of their people depended. Divinities and spirits had to be served and propitiated by constant offerings and a web of societies and cults flourished in the humid heat of the equatorial forests.

The greatest of these Southern states was Benin where the King, the Oba, achieved the stature of a divinity, and dominated a society whose life was regulated by the compulsive exactions of an elaborate theology as dark and mysterious as the forests and swamps themselves, and whose history was recorded in bronze castings of superb craftsmanship—the only example of a Southern society with traditions resting upon something more permanent than oral legend.

Today the Northern emirates and the Southern states, for so long insulated from contact with each other by vast distances, swamps, forests and the tsetse fly, are linked by internal air-services, trains and a network of roads which are gradually eroding the obstacles of race, language and prejudice.

AFRICANS IN AUTHORITY

It is the day of the Local Council meeting and around the Council Hall, a mud-built

Meetings of local Councils, of which there are over 150 in the Western Region of Nigeria alone, are conducted with due regard for democratic discussion; but this is hampered by the differences of language, ten being spoken in the same area. Records in English are therefore indispensable

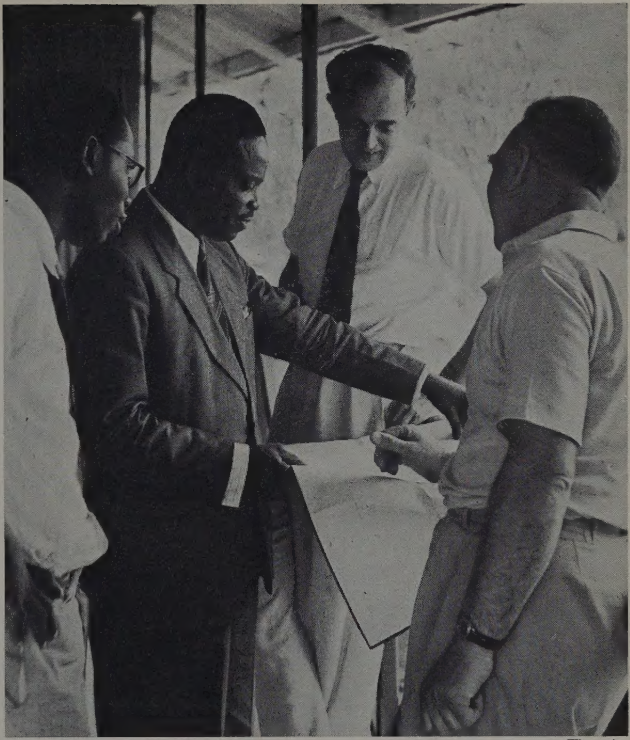
The author

structure with whitewashed walls, breast-high, its corrugated-iron roof supported on pillars, a small crowd of people have gathered to watch the proceedings within.

Inside the hall the members sit in rows upon benches. At one end is a raised platform upon which the President sits in a high straight-backed chair. Behind him hangs a colour-photograph of the Queen.

The chiefs, traditional members who do not have to stand for election, are dressed in brightly coloured voluminous gowns and wear bead-work crowns of intricate and beautiful workmanship, common throughout the Western Region of Nigeria. The elected members wear dress varying from loose gowns and embroidered velvet caps to conventional European suits.

Beneath the President's dais sits the clerk to the Council, laboriously taking minutes of the proceedings in longhand, and beside him other servants of the Council: the Agricultural Assistant, the Works Overseer, the Sanitary Inspector and others. Proceedings are slow, for everything must be translated: letters from the Ministries, minutes of the previous meeting and reports of committees of the Council are in English and debates have to be interrupted while the interpreter translates into one or more languages.



The autho

The three Regions have their own Legislatures and Ministers, controlling departments with large spending-powers. Here the Minister of Development, Western Region, inspects plans for a new citrus factory—one project among several, involving millions of pounds, which are under his Ministry's control

In the street outside the sun beats down on the stalls where traders sit and wait for trade and goats stroll unmolested, with pert flicks of their tails, among the children playing in the dust, oblivious of the revolution in African government that is taking place.

* * * * *

The Secretariat buildings in Ibadan, the capital of Western Nigeria, are long, double-storeyed structures standing one behind the other. They contain the offices of the various Ministries and Ministers and, also, those of the heads of Regional departments and the hundreds of government officials needed to implement the wishes of a legislature intent on achieving the maximum progress in the minimum of time.

As the visitor walks along the veranda of each building, his eye is constantly caught by an insistent activity in the offices open to the passing gaze: telephones ring, typewriters clatter and clerks move among desks piled with files; a European secretary-typist listens to a dictaphone while, next door, a Permanent Secretary talks into a tape-recorder; there is none of the leisurely stillness of government offices in Britain.

Outside a Minister's office a delegation waits. A private secretary ushers them in.

"I think," remarks the Minister, after greeting the delegation and with a glance at the files before him, "that we should have the Permanent Secretary in on this. Mr Denison," he says as the Permanent Secretary enters, "these gentlemen have come to make representations about a piped water supply for their town. I propose to explain to them

In the second half of the 20th century Nigeria's internal cohesion, as yet incomplete, will depend largely on the decisions taken at the conference to be held this year. Meanwhile one of the century's major inventions, air travel, unites a country which has been divided by geography and history

the powers their own Council have in the matter. Could you let me have the figures which were worked out to show the water rate it would be necessary for their Council to impose?"

Turning to the delegation, the Minister says with a smile: "The Local Government Law gives Councils great powers, gentlemen. They must learn to use them."

* * * * *

British responsibility for Nigeria only took final shape in 1914, when the Colony and Protectorate was established as the culmination of fifty years' gradually extending control; and it is hard to believe that in so short a time the country has been transformed from a welter of mutually hostile peoples and tribes into a Federation approaching national identity, where a man can now travel freely and unmolested.

Within living memory Nigeria has been given roads, rail and air communications, a great port has been built at Lagos, the rule of law imposed, schools built and the people freed from ancient tyrannies. Much has been achieved but it is hardly more than a foundation.

Since World War II the country's development has received tremendous impetus from generous help by the United Kingdom and from the high prices obtaining in world markets for Nigerian produce: principally cocoa from the Western region, groundnuts from the Northern and palm-oil and palm-kernels from the Eastern. Nigeria's main problem now is not money but people: experts to implement the measures planned by the Federal and Regional legislatures. The problem is made more acute by the departure of so many Europeans from the country's service.

That distinguished African, Professor Aggrey of Achimota College in the Gold Coast, once, when discussing race relations, talked of the white and black races being like the white and black keys of a piano—essential to each other. Nigeria must find ways of maintaining the number of white keys; for without them, as responsible African opinion is increasingly recognizing, there is a danger of the country's progress being crippled.